STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 164165

TO: Michael T Brannock
Location: REM/4D74/4C70
Art Unit: 1649
Sept 2, 2005

Case Serial Number: 09/640582

From: P. Sheppard
Location: Remsen Building
Phone: (571) 272-2529

sheppard@uspto.gov

Search Notes

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STIC-Biotech/ChemLib 164/165

From: Brannock, Michael
Sent: Monday, August 29, 2005 10:58 AM
To: STIC-Biotech/ChemLib
Subject: 09640582

Please povide a search of SEQ ID NO: 1 against pending, issued, and published databases.

Thank you

Michael T. Brannock, Ph.D.
Patent Examiner, AU 1649
USPTO Remsen Bld. 4D74
(571) 272-0869
Mail-Box: 4C70

****
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Searcher:_____
Searcher Phone: 2-
Date Searcher Picked up:____
Date Completed:_____
Searcher Prep/Rev. Time:___
Online Time:_____

****
Type of Search

NA#:_____ AA#:_____
Interference:____ SPDI:___
S/L:_____ Oligomer:_____
Encode/Transl:_____
Structure#:_____ Text:___
Inventor:____ Litigation:___

****
Vendors and cost where applicable
STN:_____
DIALOG:_____
QUESTEL/ORBIT:_____
LEXIS/NEXIS:_____
SEQUENCE SYSTEM:_____
WWW/Internet:_____
Other(Specify):_____

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GenCore version 5.1.6

OM nucleic - nucleic search, using sw model

Run on: August 30, 2005, 19:53:43 ; Search time 218 Seconds
(without alignments)
10072.859 Million cell updates/sec

Title: US-09-640-582A-1
Perfect score: 1342
Sequence: 1 cgttgcgcttcaccaagatc.....cacctgchgccncctcaccc 1342

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 1202784 seqs, 818138359 residues

Total number of hits satisfying chosen parameters: 2405568

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_NA:*
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2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
	1	1298.6	96.8	3235	4	US-09-949-016-1392	Sequence 1392, Ap
	2	1297	96.6	3372	4	US-09-949-016-165	Sequence 165, App
	3	1207	89.9	1792	4	US-09-086-436-40	Sequence 40, Appl
	4	1194.4	89.0	1790	4	US-08-997-685A-11	Sequence 11, Appl
	5	927.2	69.1	4276	4	US-09-949-016-4900	Sequence 4900, Ap
	6	927.2	69.1	5065	4	US-09-949-016-744	Sequence 744, App
	7	874.2	65.1	1512	4	US-09-086-436-32	Sequence 32, Appl
	8	871	64.9	1584	4	US-08-997-685A-3	Sequence 3, Appli
	9	751.8	56.0	2976	4	US-09-774-528-317	Sequence 317, App
	10	735.2	54.8	2733	4	US-08-997-685A-1	Sequence 1, Appli
	11	706	52.6	1518	4	US-09-086-436-34	Sequence 34, Appl
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	13	680.2	50.7	2246	4	US-09-086-436-38	Sequence 38, Appl
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	15	680.2	50.7	3224	4	US-09-774-528-238	Sequence 238, App
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	17	331.8	24.7	1083	4	US-09-270-767-1038	Sequence 1038, Ap
	18	331.8	24.7	1083	4	US-09-270-767-16320	Sequence 16320, A
	19	285.6	21.3	31467	4	US-09-949-016-13134	Sequence 13134, A
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c	37	128	9.5	601	4	US-09-949-016-21141	Sequence 21141, A
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	42	102.6	7.6	3950	3	US-09-226-012-3	Sequence 3, Appli
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c	44	94	7.0	601	4	US-09-949-016-47490	Sequence 47490, A
	45	86.6	6.5	3249	4	US-09-358-383C-3	Sequence 3, Appli

ALIGNMENTS

RESULT 1
US-09-949-016-1392
; Sequence 1392, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1392
; LENGTH: 3235
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-1392

Query Match 96.8%; Score 1298.6; DB 4; Length 3235;
Best Local Similarity 99.1%; Pred. No. 1.9e-257;
Matches 1329; Conservative 7; Mismatches 2; Indels 3; Gaps 3;

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Qy         844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
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RESULT 2
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; Sequence 165, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
;  APPLICANT: VENTER, J. Craig et al.
;  TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
;  TITLE OF INVENTION:  WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
;  FILE REFERENCE: CL001307
;  CURRENT APPLICATION NUMBER: US/09/949,016
;  CURRENT FILING DATE:  2000-04-14
;  PRIOR APPLICATION NUMBER: 60/241,755
;  PRIOR FILING DATE: 2000-10-20
;  PRIOR APPLICATION NUMBER: 60/237,768
;  PRIOR FILING DATE: 2000-10-03
;  PRIOR APPLICATION NUMBER: 60/231,498
;  PRIOR FILING DATE: 2000-09-08
;  NUMBER OF SEQ ID NOS: 207012
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 165
;   LENGTH: 3372
;   TYPE: DNA
;   ORGANISM: Human
US-09-949-016-165

  Query Match             96.6%;  Score 1297;  DB 4;  Length 3372;
  Best Local Similarity   99.0%;  Pred. No. 4.1e-257;
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RESULT 3
US-09-086-436-40
; Sequence 40, Application US/09086436
; Patent No. 6703485
; GENERAL INFORMATION:
;  APPLICANT: Kandel, Eric R.
;  APPLICANT: Santoro, Bina
;  APPLICANT: Bartsch, Dusan
;  APPLICANT: Siegelbaum, Steven
;  APPLICANT: Tibbs, Gareth
;  APPLICANT: Grant, Seth
;  TITLE OF INVENTION: Brain or Heart Cyclic Nucleotide Gated Ion Channel and
;  TITLE OF INVENTION: Uses Thereof
;  FILE REFERENCE: 0575/54806-A
;  CURRENT APPLICATION NUMBER: US/09/086,436
;  CURRENT FILING DATE: 1998-05-28
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 40
;   LENGTH: 1792
;   TYPE: DNA
;   ORGANISM: Human
US-09-086-436-40

  Query Match             89.9%;  Score 1207;  DB 4;  Length 1792;
  Best Local Similarity   99.0%;  Pred. No. 1.1e-238;
  Matches 1235;  Conservative    0;  Mismatches   11;  Indels    2;  Gaps    2;

Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
                ||||||||||| ||||||||||||||||||||||||||||||||||||||||||||||||
Db        541 TGCGCTTCACCAAAATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 600

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        601 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 660

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        661 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 720

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
                |||||||||| ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        721 TCCTGGTGCCTATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 780

Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        781 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 840

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
                |||||||||||||||||||||||||||||| ||||||||||||||||||||||||||||||
Db        841 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAAAGCATGACGGACATCTGGCTGACCATGC 900

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        901 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 960

Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        961 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 1020

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
                |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||| |
Db       1021 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAAC 1080

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1081 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 1140

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1141 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 1200

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1201 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 1260

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1261 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 1320

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1321 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 1380

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
                |||||||||||||||||||||||||||||||||||||||||||||| ||||||||||||||
Db       1381 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGANCGTGCGGGCTGACA 1440

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
                |||||||||||||||||||| |||||||||||||||||||||||| ||||||||||||||||
Db       1441 CCTACTGCCGCCTCTATTCCCTGAGCGTGGACAACTTCAACGAAGTGCTGGAGGAGTACC 1500

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
                |||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||||
Db       1501 CCATGATGCGGCGCGCTTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1560

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Db       1561 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1620

Qy       1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1143
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1621 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1680

Qy       1144 AGCTGGGCTCAGCGCGTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCCGCA-GTCACCTCG 1202
             ||||||| |||||||||||||| | |||||||||||||||||||||||||| ||||| |||
Db       1681 AGCTGGG-TCAGCGCGTGGGCTTTTTCCCGCCGCCGCCGCCGCCGCCGCAGGTCACTTCG 1739

Qy       1203 GCCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCTGCCCGCAG 1250
             ||||||||||||||||||||||||||||||||||||||||||||||||
Db       1740 GCCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCTGCCCGCAG 1787


RESULT 4
US-08-997-685A-11
; Sequence 11, Application US/08997685A
; Patent No. 6551821
; GENERAL INFORMATION:
;  APPLICANT: The Trustees of Columbia University
;  APPLICANT:  Kandel, Eric
;  TITLE OF INVENTION: Brain Cyclic Nucleotide Gated Ion Channel and Uses Thereof
;  FILE REFERENCE: 0575/54806
;  CURRENT APPLICATION NUMBER: US/08/997,685A
;  CURRENT FILING DATE:  1997-12-12
;  NUMBER OF SEQ ID NOS: 60
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 11
;   LENGTH: 1790
;   TYPE: DNA
;   ORGANISM: human;
US-08-997-685A-11

  Query Match             89.0%;  Score 1194.4;  DB 4;  Length 1790;
  Best Local Similarity   98.9%;  Pred. No. 4.2e-236;
  Matches 1234;  Conservative    0;  Mismatches   11;  Indels    3;  Gaps    3;

Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
              |||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||||
Db        540 TGCGCTTCACCAAAATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 599

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        600 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 659

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        660 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 719

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
              |||||||||| ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        720 TCCTGGTGCCTATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 779

Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        780 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 839

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
              |||||||||||||||||||||||||||||| ||||||||||||||||||||||||||||
Db        840 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAAAGCATGACGGACATCTGGCTGACCATGC 899

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        900 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 959

Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        960 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 1019

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| |
Db       1020 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAAC 1079

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1080 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 1139

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1140 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 1199

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1200 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 1259

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
              |||||||||||||||||||||||||| ||||||||||||||||||||||||||||||||
Db       1260 AGCCGGGTGACTACATCATCCGCGAAAGCACCATCGGGAAGAAGATGTACTTCATCCAGC 1319

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1320 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 1379

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              |||||||||||||||||||||||||||||||||||||||||||| ||||||||||||||||
Db       1380 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGA-CGTGCGGGCTGACA 1438

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              |||||||||||||||||||| |||||||||||||||||||||||| ||||||||||||||||
Db       1439 CCTACTGCCGCCTCTATTCCCTGAGCGTGGACAACTTCAACGAAGTGCTGGAGGAGTACC 1498

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              |||||||||||||||| |||||||||||||||||||||||||||||||||||||||||||
Db       1499 CCATGATGCGGCGCGCTTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1558

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1559 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1618

Qy       1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1143
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1619 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1678

Qy       1144 AGCTGGGCTCAGCGCGTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCCGCA-GTCACCTCG 1202
              ||||||| |||||||||||||| | |||||||||||||||||||||||||| ||||| |||
Db       1679 AGCTGGG-TCAGCGCGTGGGCTTTTTCCCGCCGCCGCCGCCGCCGCCGCAGGTCACTTCG 1737

Qy       1203 GCCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCTGCCCGCAG 1250
              ||||||||||||||||||||||||||||||||||||||||||||||||
Db       1738 GCCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCTGCCCGCAG 1785


RESULT 5
US-09-949-016-4900
; Sequence 4900, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
;  APPLICANT: VENTER, J. Craig et al.
;  TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
;  TITLE OF INVENTION:  WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
;  FILE REFERENCE: CL001307
;  CURRENT APPLICATION NUMBER: US/09/949,016
;  CURRENT FILING DATE:  2000-04-14
;  PRIOR APPLICATION NUMBER: 60/241,755
;  PRIOR FILING DATE: 2000-10-20
;  PRIOR APPLICATION NUMBER: 60/237,768
;  PRIOR FILING DATE: 2000-10-03
;  PRIOR APPLICATION NUMBER: 60/231,498
;  PRIOR FILING DATE: 2000-09-08
;  NUMBER OF SEQ ID NOS: 207012
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4900
;   LENGTH: 4276
;   TYPE: DNA
;   ORGANISM: Human
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US-09-949-016-4900

Query Match 69.1%; Score 927.2; DB 4; Length 4276;
Best Local Similarity 84.7%; Pred. No. 3.6e-181;
Matches 1040; Conservative 0; Mismatches 188; Indels 0; Gaps 0;

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Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
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Db        849 TCCGCTTCACGAAGATCCTCAGCCTCTTACGCCTGTTACGCCTCTCCCGCCTCATTCGAT 908

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
              | || || |||||||| |||||||||||||||||||||| |||||||||||||| ||| ||
Db        909 ATATTCACCAGTGGGAAGAGATCTTCCACATGACCTACGACCTGGCCAGCGCCGTGGTGC 968

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
              | |||   || |||||| |||||||||| ||||||||||||||||||||||||||||||
Db        969 GCATCGTGAACCTCATCGGCATGATGCTCCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 1028

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
              ||||||| |||||||| |||||||||||   | ||||||||||||||||||    |||||
Db       1029 TCCTGGTACCCATGCTACAGGACTTCCCTGACGACTGCTGGGTGTCCATCAACAACATGG 1088

Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
              ||||| |||| ||| |  | | |||||||| ||| |||||||||||||||||||||||||
Db       1089 TGAACAACTCCTGGGGGAAGCAGTACTCCTACGCGCTCTTCAAGGCCATGAGCCACATGC 1148

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
              |||||||||| ||||| |||||||||||| | ||||| | ||| ||||||| |||||||
Db       1149 TGTGCATCGGCTACGGGCGGCAGGCGCCCGTGGGCATGTCCGACGTCTGGCTCACCATGC 1208

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
              |||||||||| |||||||||||||||||||||||||||||||||| ||||||||||||||
Db       1209 TCAGCATGATCGTGGGTGCCACCTGCTACGCCATGTTCATTGGCCACGCCACTGCCCTCA 1268

Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
              ||||||| |||||||||| |||||||||||||||||| |||||||||||||||||||||||
Db       1269 TCCAGTCCCTGGACTCCTCCCGGCGCCAGTACCAGGAAAAGTACAAGCAGGTGGAGCAGT 1328

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
              |||||||||| |||||||| ||  | |||  ||| |||   |||||||||||||| ||||
Db       1329 ACATGTCCTTTCACAAGCTCCCGCCCGACACCCGGCAGCGCATCCACGACTACTACGAGC 1388

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              |||| |||||||||||||||||| |||||||| |||||||||||||||||| | || |||||
Db       1389 ACCGCTACCAGGGCAAGATGTTCGACGAGGAGAGCATCCTGGGCGAGCTAAGCGAGCCCC 1448

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              |||||||||||||| ||||||| ||||| |||||||||||||||||||||||||| ||||| |
Db       1449 TGCGGGAGGAGATCATCAACTTTAACTGTCGGAAGCTGGTGGCCTCCATGCCACTGTTTG 1508

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
              |||| || |||||||||||||| ||| |||||||||||||||    ||||||||||||||
Db       1509 CCAATGCCGGACCCCAACTTCGTGACGTCCATGCTGACCAAGCTGCGTTTCGAGGTCTTCC 1568

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
              |||| || |||||||||||||||| |||||||||| || ||||||||||||||||||||||
Db       1569 AGCCTGGGGACTACATCATCCGGGAAGGCACCATTGGCAAGAAGATGTACTTCATCCAGC 1628

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              | |||||||||||||||||||| |||||||||||||||||   |||||| |||| |||||||
Db       1629 ATGGCGTGGTCAGCGTGCTCACCAAGGGCAACAAGGAGACCAAGCTGGCCGACGGCTCCT 1688

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              |||| || |||||||||||||| |||||||||| ||||| || |||||| |||| ||||
Db       1689 ACTTTGGAGAGATCTGCCTGCTGACCCGGGGCCGGCGCACAGCCAGCGTGAGGGCCGACA 1748

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              |||||||||||||||| |||||||||||||||||||||||||||||||||||||||||||
Db       1749 CCTACTGCCGCCTCTACTCGCTGAGCGTGGACAACTTCAATGAGGTGCTGGAGGAGTACC 1808

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              |||||||||  | |||||||||| |||||  | |||||||||||||||||| |||||||
Db       1809 CCATGATGCGAAGGGCCTTCGAGACCGTGGCGCTGGACCGCCTGGACCGCATTGGCAAGA 1868

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
              |||| |||||||||||| ||||| || ||||| |||||||||||| ||||| |||||| |||
Db       1869 AGAACTCCATCCTCCTCCACAAAGTCCAGCACGACCTCAACTCCGGCGTCTTCAACTACC 1928

Qy       1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1143
              ||||||| |  ||||||||| |||| ||  || | ||||| |||||||  ||    ||
Db       1929 AGGAGAATGAGATCATCCAGCAGATTGTGCAGCATGACCGGGAGATGGCCCACTGCGCGC 1988

Qy       1144 AGCTGGGCTCAGCGCGTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCCGCAGTCACCTCGG 1203
              | |  | |   ||  ||  ||    || |  || || |  ||| |      ||| ||
Db       1989 ACCGCGTCCAGGCTGCTGCCTCTGCCACCCCAACCCCCACGCCCGTCATCTGGACCCCGC 2048

Qy       1204 CCATCGCCACGCTGCAGCAGGCGGCGGC 1231
                |||    | |  | |||||| || ||
Db       2049 TGATCCAGGCACCACTGCAGGCTGCCGC 2076
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RESULT 6
US-09-949-016-744
; Sequence 744, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 744
; LENGTH: 5065
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-744

Query Match 69.1%; Score 927.2; DB 4; Length 5065;
Best Local Similarity 84.7%; Pred. No. 3.8e-181;
Matches 1040; Conservative 0; Mismatches 188; Indels 0; Gaps 0;

```
Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
              | ||||||||| ||||||||||||||| | || ||| | |||||||| ||||| || || |
Db       1696 TCCGCTTCACGAAGATCCTCAGCCTCTTACGCCTGTTACGCCTCTCCCGCCTCATTCGAT 1755

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
              | || || |||||||| |||||||||||||||||||||| |||||||||||||| ||| ||
Db       1756 ATATTCACCAGTGGGAAGAGATCTTCCACATGACCTACGACCTGGCCAGCGCCGTGGTGC 1815

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
              | |||   || |||||| |||||||||| ||||||||||||||||||||||||||||||
Db       1816 GCATCGTGAACCTCATCGGCATGATGCTCCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 1875

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
              ||||||| |||||||| |||||||||||   | ||||||||||||||||||    |||||
Db       1876 TCCTGGTACCCATGCTACAGGACTTCCCTGACGACTGCTGGGTGTCCATCAACAACATGG 1935

Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
              ||||| |||| ||| |  | | |||||||| ||| |||||||||||||||||||||||||
Db       1936 TGAACAACTCCTGGGGGAAGCAGTACTCCTACGCGCTCTTCAAGGCCATGAGCCACATGC 1995

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
              |||||||||| ||||| |||||||||||| | ||||| | ||| ||||||| |||||||
Db       1996 TGTGCATCGGCTACGGGCGGCAGGCGCCCGTGGGCATGTCCGACGTCTGGCTCACCATGC 2055

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
              |||||||||| |||||||||||||||||||||||||||||||||| ||||||||||||||||||||
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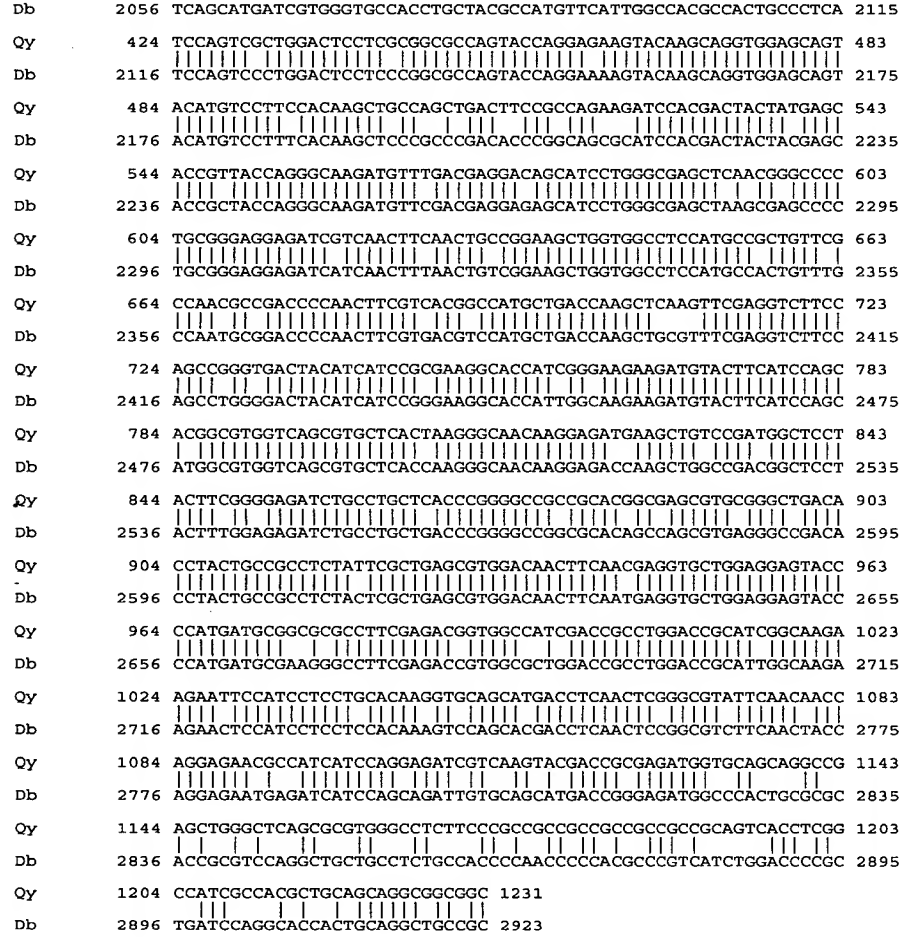
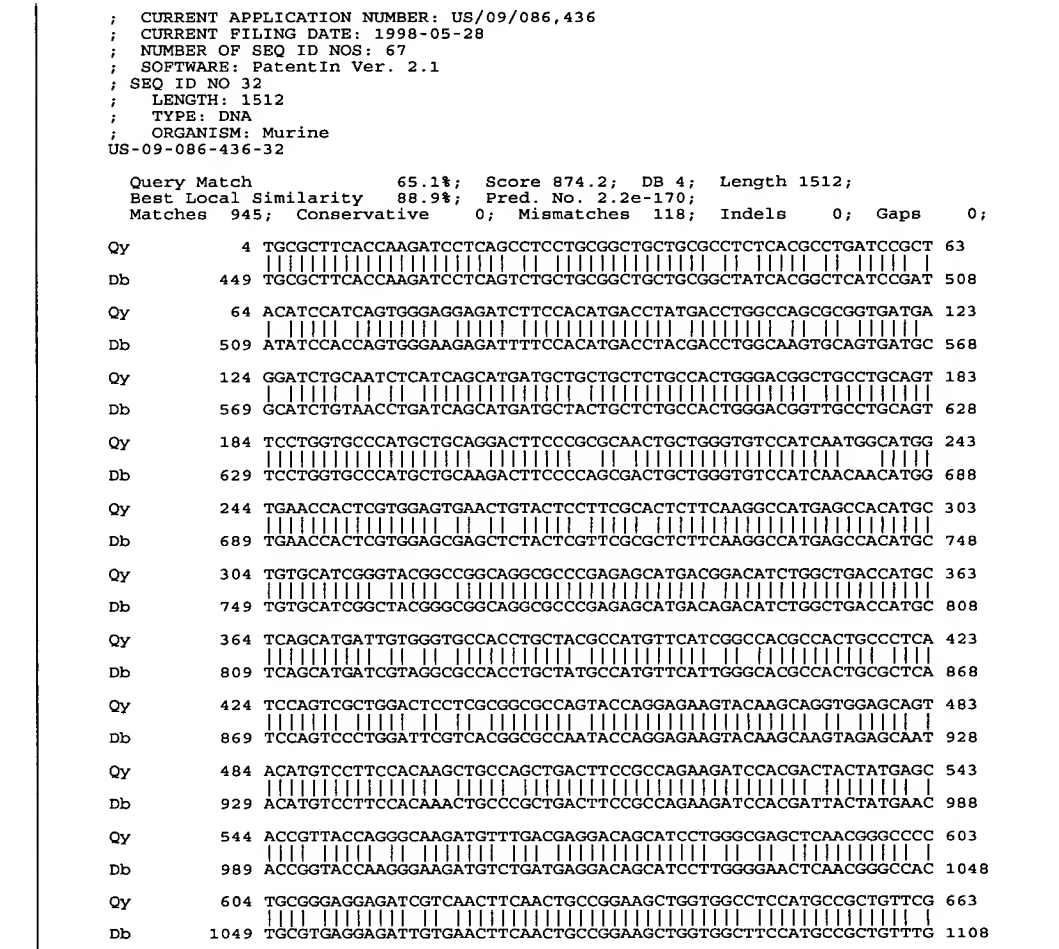


RESULT 7
US-09-086-436-32
; Sequence 32, Application US/09086436
; Patent No. 6703485
; GENERAL INFORMATION:
; APPLICANT: Kandel, Eric R.
; APPLICANT: Santoro, Bina
; APPLICANT: Bartsch, Dusan
; APPLICANT: Siegelbaum, Steven
; APPLICANT: Tibbs, Gareth
; APPLICANT: Grant, Seth
; TITLE OF INVENTION: Brain or Heart Cyclic Nucleotide Gated Ion Channel and
; TITLE OF INVENTION: Uses Thereof
; FILE REFERENCE: 0575/54806-A



; CURRENT APPLICATION NUMBER: US/09/086,436
; CURRENT FILING DATE: 1998-05-28
; NUMBER OF SEQ ID NOS: 67
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 32
; LENGTH: 1512
; TYPE: DNA
; ORGANISM: Murine
US-09-086-436-32

Query Match 65.1%; Score 874.2; DB 4; Length 1512;
Best Local Similarity 88.9%; Pred. No. 2.2e-170;
Matches 945; Conservative 0; Mismatches 118; Indels 0; Gaps 0;

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Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              ||||||| |||||||| || ||||| |||||||| ||||||||||||||||||||| ||||
Db       1349 CCTACTGTCGCCTCTACTCACTGAGTGTGGACAATTTCAACGAGGTGCTGGAGGAATACC 1408

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              |||||||||||| ||||| ||||| ||||| || ||||| || || ||||| |||||||
Db       1409 CCATGATGCGGCGTGCCTTTGAGACTGTGGCTATTGACCGGCTAGATCGCATAGGCAAGA 1468

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTC 1066
              |||| |||| | | |||||||||||| |||||||| |||| |||
Db       1469 AGAACTCCACCTTGCTGCACAAGGTTCAGCATGATCTCAGCTC 1511


RESULT 8
US-08-997-685A-3
; Sequence 3, Application US/08997685A
; Patent No. 6551821
; GENERAL INFORMATION:
;  APPLICANT: The Trustees of Columbia University
;  APPLICANT:  Kandel, Eric
;  TITLE OF INVENTION: Brain Cyclic Nucleotide Gated Ion Channel and Uses Thereof
;  FILE REFERENCE: 0575/54806
;  CURRENT APPLICATION NUMBER: US/08/997,685A
;  CURRENT FILING DATE:  1997-12-12
;  NUMBER OF SEQ ID NOS: 60
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
;   LENGTH: 1584
;   TYPE: DNA
;   ORGANISM: mouse;
US-08-997-685A-3

  Query Match             64.9%;  Score 871;  DB 4;  Length 1584;
  Best Local Similarity   88.7%;  Pred. No. 1e-169;
  Matches  943;  Conservative    0;  Mismatches  120;  Indels    0;  Gaps    0;

Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
              |||  |||||||||||||||| || |||||||||||||| || ||||| || ||||| |
Db        449 TGCCGTTCACCAAGATCCTCAGTCTGCTGCGGCTGCTGCGGCTATCACGGCTCATCCGAT 508

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
              | ||||| |||||||| ||||| |||||||||||||| |||||||| || || ||||||
Db        509 ATATCCACCAGTGGGAAGAGATTTTCCACATGACCTACGACCTGGCAAGTGCAGTGATGC 568

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
              | ||||| || || |||||||||||||| |||||||||||||||||||| ||||||||||
Db        569 GCATCTGTAACCTGATCAGCATGATGCTACTGCTCTGCCACTGGGACGGTTGCCTGCAGT 628

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
              |||||||||||||||||| ||||||||  || ||||||||||||||||||    |||||
Db        629 TCCTGGTGCCCATGCTGCAAGACTTCCCCAGCGACTGCTGGGTGTCCATCAACAACATGG 688

Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
              |||||||||||||||| || || ||||| ||||| ||||||||||||||||||||||||
Db        689 TGAACCACTCGTGGAGCGAGCTCTACTCGTTCGCGCTCTTCAAGGCCATGAGCCACATGC 748

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
              |||||||||| ||||| |||||||||||||||||||||||| ||||||||||||||||||
Db        749 TGTGCATCGGCTACGGGCGGCAGGCGCCCGAGAGCATGACAGACATCTGGCTGACCATGC 808

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
              |||||||||| || || |||||||||| |||||||||| || |||||||||| ||||
Db        809 TCAGCATGATCGTAGGCGCCACCTGCTATGCCATGTTCATTGGGCACGCCACTGCGCTCA 868

Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
              ||||||| ||||| || || |||||||| |||||||||||||||||| || ||||| |
Db        869 TCCAGTCCCTGGATTCGTCACGGCGCCAATACCAGGAGAAGTACAAGCAAGTAGAGCAAT 928

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
              |||||||||||||||| ||||| |||||||||||||||||||||||| |||||||| |
Db        929 ACATGTCCTTCCACAAACTGCCCGCTGACTTCCGCCAGAAGATCCACGATTACTATGAAC 988

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              |||| ||||| || ||||||| ||| |||||||||||||| || || ||||||||||| |
Db        989 ACCGGTACCAAGGGAAGATGTCTGATGAGGACAGCATCCTTGGGGAACTCAACGGGCCAC 1048

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              |||| |||||||| || |||||||||||||||||||||||||| |||||||||||||| |
Db       1049 TGCGTGAGGAGATTGTGAACTTCAACTGCCGGAAGCTGGTGGCTTCCATGCCGCTGTTTG 1108

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
              |||| || |||||||| |||||||| |||||||||| |||||||| || ||||||||||
Db       1109 CCAATGCAGACCCCAATTTCGTCACAGCCATGCTGACAAAGCTCAAATTTGAGGTCTTCC 1168

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
              |||| || || |||||||||| || || ||||||||||||||||||||||||||||||||
Db       1169 AGCCTGGAGATTACATCATCCGAGAGGGGACCATCGGGAAGAAGATGTACTTCATCCAGC 1228

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              | || ||||| |||||||||| |||||||||||||||||||||||||| ||||||||||
Db       1229 ATGGGGTGGTGAGCGTGCTCACCAAGGGCAACAAGGAGATGAAGCTGTCGGATGGCTCCT 1288

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              | |||||||||||||| |||||||  ||||||| || ||||| |||||||| |||||||
Db       1289 ATTTCGGGGAGATCTGCTTGCTCACGAGGGGCCGGCGTACGGCCAGCGTGCGAGCTGACA 1348

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              ||||||| |||||||| || ||||| |||||||| |||||||||||||||||||| ||||
Db       1349 CCTACTGTCGCCTCTACTCACTGAGTGTGGACAATTTCAACGAGGTGCTGGAGGAATACC 1408

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              |||||||||||| ||||| ||||| ||||| || ||||| || || ||||| |||||||
Db       1409 CCATGATGCGGCGTGCCTTTGAGACTGTGGCTATTGACCGGCTAGATCGCATAGGCAAGA 1468

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTC 1066
              |||| |||| | | |||||||||||| |||||||| |||| |||
Db       1469 AGAACTCCACCTTGCTGCACAAGGTTCAGCATGATCTCAGCTC 1511


RESULT 9
US-09-774-528-317
; Sequence 317, Application US/09774528
; Patent No. 6743619
; GENERAL INFORMATION:
;  APPLICANT:  Tang, Y. Tom
;  APPLICANT:  Zhou, Ping
;  APPLICANT:  Goodrich, Ryle
;  APPLICANT:  Liu, Chenghua
;  APPLICANT:  Asundi, Vinod
;  APPLICANT:  Ren, Feiyan
;  APPLICANT:  Zhang, Jie
;  APPLICANT:  Zhao, Qing A.
;  APPLICANT:  Yang, Yonghong
;  APPLICANT:  Xue, Aidong J.
;  APPLICANT:  Wehrman, Tom
;  APPLICANT:  Wang, Jian-Rui
;  APPLICANT:  Wang, Dunrui
;  APPLICANT:  Drmanac, Radoje T.
;  TITLE OF INVENTION:  No. 6743619el Nucleic Acids and
;  TITLE OF INVENTION:  Polypeptides
;  FILE REFERENCE:  802
;  CURRENT APPLICATION NUMBER: US/09/774,528
;  CURRENT FILING DATE:  2001-01-30
;  NUMBER OF SEQ ID NOS:  441
;  SOFTWARE:  pt_FL_genes Version 2.0
; SEQ ID NO 317
;   LENGTH: 2976
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (18)..(2174)
US-09-774-528-317

  Query Match             56.0%;  Score 751.8;  DB 4;  Length 2976;
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  Best Local Similarity   82.6%;  Pred. No. 3.5e-145;
  Matches  861;  Conservative    0;  Mismatches  182;  Indels    0;  Gaps    0;

Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
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Db        478 TTCGCTTCACCAAGATCCTAAGCCTGCTGAGGCTGCTCCGCCTCTCCCGCCTCATCCGCT 537

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
              |||| || |||||||||||||||| |||||||||||||||||||||| || ||| |
Db        538 ACATACACCAGTGGGAGGAGATCTTTCACATGACCTATGACCTGGCCAGTGCTGTGGTTC 597

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
              | |||| ||| |||||   | |||||||||||||| || |||||||| ||||| |||||||
Db        598 GCATCTTCAACCTCATTGGGATGATGCTGCTGCTATGTCACTGGGATGGCTGTCTGCAGT 657

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
              |||||||||||||||||||||||||||| | | |||||||||| ||||||||    |||||
Db        658 TCCTGGTGCCCATGCTGCAGGACTTCCCTCCCGACTGCTGGGTCTCCATCAACCACATGG 717

Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
              |||||||||||||| |     | ||| |||   || || ||||||||||||||||||||||
Db        718 TGAACCACTCGTGGGGCCGCCAGTATTCCCATGCCCTGTTCAAGGCCATGAGCCACATGC 777

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
              ||||||| || || || | |||||| || |    ||||| | ||| |||||| |||||||
Db        778 TGTGCATTGGCTATGGGCAGCAGGCACCTGTAGGCATGCCCGACGTCTGGCTCACCATGC 837

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
              |||||||||| || |||||||| |||||||||||||||||||||| ||||| || ||||
Db        838 TCAGCATGATCGTAGGTGCCACATGCTACGCCATGTTCATCGGCCATGCCACGGCACTCA 897

Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
              ||||||| |||||||| || ||||| |||||||||||||||||||||||||||||||||
Db        898 TCCAGTCCCTGGACTCTTCCCGGCGTCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 957

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
              |||||||||||||||||||||||||| |||    || |||   |||||||| ||||||||||
Db        958 ACATGTCCTTCCACAAGCTGCCAGCAGACACGCGGCAGCGCATCCACGAGTACTATGAGC 1017

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              |||| |||||||||||||||| || ||||| |||||||||||||||| | || ||| |
Db       1018 ACCGCTACCAGGGCAAGATGTTCGATGAGGAAAGCATCCTGGGCGAGCTGAGCGAGCCGC 1077

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              | || |||||||||| | ||||||| ||| |||   |||||||||  |||||||||||| |
Db       1078 TTCGCGAGGAGATCATTAACTTCACCTGTCGGGGCCTGGTGGCCCACATGCCGCTGTTTG 1137

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
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Db       1138 CCCATGCCGACCCCAGCTTCGTCACTGCAGTTCTCACCAAGCTGCGCTTTGAGGTCTTCC 1197

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
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Db       1198 AGCCGGGGGATCTCGTGGTGCGTGAGGGCTCCGTGGGGAGGAAGATGTACTTCATCCAGC 1257

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              | ||  || |||| |||||   |   |||  |  ||| |     ||  ||||||| ||||
Db       1258 ATGGGCTGCTCAGTGTGCTGGCCCGCGGCGCCCGGGACACACGCCTCACCGATGGATCCT 1317

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              |||| |||||||||||||||| ||  ||||||| ||||| || || || ||||||||||
Db       1318 ACTTTGGGGAGATCTGCCTGCTAACTAGGGGCCGGCGCACAGCCAGTGTTCGGGCTGACA 1377

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              |||||||||||||| || || || ||||||||| | ||||| |  ||||| |||||||| ||
Db       1378 CCTACTGCCGCCTTTACTCACTCAGCGTGGACCATTTCAATGCTGTGCTTGAGGAGTTCC 1437

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              |||||||||| || ||||| ||||| |||||||| || || |||  ||||||||||||||
Db       1438 CCATGATGCGCCGGGCCTTTGAGACTGTGGCCATGGATCGGCTGCTCCGCATCGGCAAGA 1497

Qy       1024 AGAATTCCATCCTCCTGCACAAG 1046
              |||||||||| || | ||  |||
Db       1498 AGAATTCCATACTGCAGCGGAAG 1520


RESULT 10
US-08-997-685A-1
; Sequence 1, Application US/08997685A
; Patent No. 6551821
; GENERAL INFORMATION:
;  APPLICANT: The Trustees of Columbia University
;  APPLICANT:  Kandel, Eric
;  TITLE OF INVENTION: Brain Cyclic Nucleotide Gated Ion Channel and Uses Thereof
;  FILE REFERENCE: 0575/54806
;  CURRENT APPLICATION NUMBER: US/08/997,685A
;  CURRENT FILING DATE:  1997-12-12
;  NUMBER OF SEQ ID NOS: 60
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
;   LENGTH: 2733
;   TYPE: DNA
;   ORGANISM: mouse
US-08-997-685A-1

  Query Match             54.8%;  Score 735.2;  DB 4;  Length 2733;
  Best Local Similarity   78.1%;  Pred. No. 8.7e-142;
  Matches  884;  Conservative    0;  Mismatches  248;  Indels    0;  Gaps    0;

Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
              || | || || || || ||||| ||| ||||| |  | ||||| ||| |  | ||| | |
Db        737 TGAGGTTTACAAAAATTCTCAGTCTCTTGCGGTTATTACGCCTTTCAAGGTTAATCAGAT 796

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
              |||| || |||||||| ||||| |||||||||||||||||||| ||||| || ||| |||
Db        797 ACATACACCAGTGGGAAGAGATATTCCACATGACCTATGACCTCGCCAGTGCTGTGGTGA 856

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
              |||||| ||| |||||  |||||||||||||| || |||||||||| ||||| || ||||
Db        857 GGATCTTCAACCTCATTGGCATGATGCTGCTTCTGTGCCACTGGGATGGCTGTCTTCAGT 916

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
              ||||||| ||| |||||||||||||||  |    | |||||||| ||  | ||||  ||||
Db        917 TCCTGGTTCCCCTGCTGCAGGACTTCCCACCAGATTGCTGGGTTTCTCTGAATGAAATGG 976

Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
              | ||  | || ||| |  |||  || |||| ||||||||||| || ||||| |||||||
Db        977 TTAATGATTCCTGGGGAAAACAATATTCCTACGCACTCTTCAAAGCTATGAGTCACATGC 1036

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
              ||||||| || || |||    || || || |  |||||| | ||| ||||| | |||||||
Db       1037 TGTGCATTGGTTATGGCGCCCAAGCCCCTGTCAGCATGTCTGACCTCTGGATTACCATGC 1096

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
              | |||||||||||||| |||||||||||||| |||||  | |||||  ||||| || | |
Db       1097 TGAGCATGATTGTGGGCGCCACCTGCTACGCAATGTTTGTTGGCCATGCCACAGCTTTGA 1156

Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
              |||||||  |||||||  ||  || | ||||| || |||||||| ||||| || ||||| |
Db       1157 TCCAGTCTTTGGACTCTTCAAGGAGGCAGTATCAAGAGAAGTATAAGCAAGTAGAGCAAT 1216

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
              ||||||| |||||||||  | |||||||||  | |||||||||||  || ||  ||||||||||
Db       1217 ACATGTCATTCCACAAGTTACCAGCTGACATGCGCCAGAAGATACATGATTACTATGAGC 1276

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              |||| ||||| ||||||||  || || || || |  || ||  | ||||| || |  || |
Db       1277 ACCGATACCAAGGCAAGATCTTCGATGAAGAAAATATTCTCAGTGAGCTTAATGATCCTC 1336

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              || | ||||| || |||||||||||||||||||||| ||||||||  | ||||| || || |
Db       1337 TGAGAGAGGAAATAGTCAACTTCAACTGCCGGAAACTGGTGGCTACTATGCCTCTTTTTG 1396

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
              | |||||||| ||||| |||||| |||||||||||||| |||||| |   || ||||| ||||
Db       1397 CTAACGCCGATCCCAATTTCGTGACGGCCATGCTGAGCAAGCTGAGATTTGAGGTGTTCC 1456
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Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
              |||| || ||||| ||||| || |||||  |  | |||||||| ||||| ||||||||||
Db       1457 AGCCCGGAGACTATATCATTCGAGAAGGAGCTGTGGGGAAGAAAATGTATTTCATCCAGC 1516

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              |||| || |   ||||  |||| |||  ||  || || ||||||||| | |||||||| |
Db       1517 ACGGTGTTGCTGGCGTTATCACCAAGTCCAGTAAAGAAATGAAGCTGACAGATGGCTCTT 1576

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              ||||||| ||||| |||||||| |||  |||||| ||||| || || || || |||||| |
Db       1577 ACTTCGGAGAGATATGCCTGCTGACCAAGGGCCGGCGCACTGCCAGTGTCCGAGCTGATA 1636

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              ||||||| || || || || ||    |||||||| ||||| |||||  ||||||| || |
Db       1637 CCTACTGTCGTCTTTACTCCCTTTCGGTGGACAATTTCAATGAGGTCTTGGAGGAATATC 1696

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              | |||||| |  | ||||| ||||| || || || ||||| || || || || |||||||
Db       1697 CAATGATGAGAAGAGCCTTTGAGACAGTTGCTATTGACCGACTCGATCGGATAGGCAAGA 1756

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
              | || || || |||||||| ||| | ||| | || || ||| | || || ||||||||||
Db       1757 AAAACTCTATTCTCCTGCAGAAGTTCCAGAAGGATCTAAACACTGGTGTTTTCAACAACC 1816

Qy       1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCA 1135
              |||||||||  ||| |  || ||||||| ||| | ||||| |||||||| ||
Db       1817 AGGAGAACGAGATCCTGAAGCAGATCGTGAAGCATGACCGAGAGATGGTACA 1868
```

RESULT 11
US-09-086-436-34
; Sequence 34, Application US/09086436
; Patent No. 6703485
; GENERAL INFORMATION:
; APPLICANT: Kandel, Eric R.
; APPLICANT: Santoro, Bina
; APPLICANT: Bartsch, Dusan
; APPLICANT: Siegelbaum, Steven
; APPLICANT: Tibbs, Gareth
; APPLICANT: Grant, Seth
; TITLE OF INVENTION: Brain or Heart Cyclic Nucleotide Gated Ion Channel and
; TITLE OF INVENTION: Uses Thereof
; FILE REFERENCE: 0575/54806-A
; CURRENT APPLICATION NUMBER: US/09/086,436
; CURRENT FILING DATE: 1998-05-28
; NUMBER OF SEQ ID NOS: 67
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 34
; LENGTH: 1518
; TYPE: DNA
; ORGANISM: Murine
US-09-086-436-34

Query Match 52.6%; Score 706; DB 4; Length 1518;
Best Local Similarity 85.3%; Pred. No. 7.6e-136;
Matches 787; Conservative 0; Mismatches 136; Indels 0; Gaps 0;

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Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
              | || ||||| ||||||||||||||||||||| ||  || | || || ||||| || || |
Db        596 TCCGTTTCACTAAGATCCTCAGCCTCCTGCGCCTCTTGAGGCTTTCCCGCCTCATTCGAT 655

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCCGTGATGA 123
              |||| |||||||||||| ||||| |||||||||||||||||||||||||| ||| |
Db        656 ACATTCATCAGTGGGAAGAGATTTTCCACATGACCTATGACCTGGCCAGCGCCGTGGTAC 715

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
              | |||   || |||||  |||||||||| ||||| || |||||||| ||||||||||||
Db        716 GCATCGTGAACCTCATTGGCATGATGCTTCTGCTGTGTCACTGGGATGGCTGCCTGCAGT 775

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
              |||| |||||||||||||||||||||| |   ||||||||||||||||||||||||||||
Db        776 TCCTAGTGCCCATGCTGCAGGACTTCCCCCATGACTGCTGGGTGTCCATCAATGGCATGG 835
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Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
              ||||  |||| ||| |  | | ||| |||| ||| ||||||||||||||||||||||||||
Db        836 TGAATAACTCCTGGGGGAAGCAGTATTCCTACGCCCTCTTCAAGGCCATGAGCCACATGC 895

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
              ||||||| ||||| || |||||||| ||||   ||||| | ||| ||||||| |||||||
Db        896 TGTGCATTGGGTATGGACGGCAGGCACCCGTAGGCATGTCTGACGTCTGGCTCACCATGC 955

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
              |||||||||| ||||| |||||||||||| ||||||||||||||||||||||||||||||
Db        956 TCAGCATGATCGTGGGGGCCACCTGCTATGCCATGTTCATCGGCCACGCCACTGCCCTCA 1015

Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
              |||||||||| |||||||| |||||||||||||||||||||||| || ||||||||||||
Db       1016 TCCAGTCGCTAGACTCCTCCCGGCGCCAGTACCAGGAGAAGTATAAACAGGTGGAGCAGT 1075

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
              ||||||| |||||||||| ||  ||||| ||| |||   ||||| |||||||||| | |
Db       1076 ACATGTCTTTCCACAAGCTCCCGCCTGACACCCGACAGCGCATCCATGACTACTATGAAC 1135

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              |||||||||| |||||||||||||| ||||| |||||||||| ||| | |  | ||| |
Db       1136 ACCGTTACCAAGGCAAGATGTTTGATGAGGAAAGCATCCTGGGTGAGTTGAGTGAGCCAC 1195

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              | || |||||||| ||||||| |||||||| |||||||||| |||||||| ||||| |
Db       1196 TTCGAGAGGAGATCATCAACTTTAACTGCCGAAAGCTGGTGGCATCCATGCCACTGTTTG 1255

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
              ||||||| || |||||||| || ||  |||||||||||||| |    ||||||||||||
Db       1256 CCAACGCAGATCCCAACTTTGTGACATCCATGCTGACCAAGTTGCGTTTCGAGGTCTTCC 1315

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
              |||| || || |||||||||||||||||||||||||||||| |||||||||||| |||||||
Db       1316 AGCCTGGGGATTACATCATCCGCGAAGGCACCATCGGCAAGAAGATGTACTTTATCCAGC 1375

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              |||||||||||||||||||||||||||||||||||||||| |||| | |||| | ||||||||||
Db       1376 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAAGAGACCAGGCTGGCTGATGGCTCCT 1435

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              | || || |||||||||| |||| |||||||| || ||||| || |||||  | || || |
Db       1436 ATTTTGGAGAGATCTGCTTGCTGACCCGGGGTCGGCGCACAGCCAGCGTCAGAGCGGATA 1495

Qy        904 CCTACTGCCGCCTCTATTCGCTG 926
              | || | |||||||||| || |||
Db       1496 CTTATTNCCGCCTCTACTCACTG 1518
```

RESULT 12
US-08-997-685A-5
; Sequence 5, Application US/08997685A
; Patent No. 6551821
; GENERAL INFORMATION:
; APPLICANT: The Trustees of Columbia University
; APPLICANT: Kandel, Eric
; TITLE OF INVENTION: Brain Cyclic Nucleotide Gated Ion Channel and Uses Thereof
; FILE REFERENCE: 0575/54806
; CURRENT APPLICATION NUMBER: US/08/997,685A
; CURRENT FILING DATE: 1997-12-12
; NUMBER OF SEQ ID NOS: 60
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
; LENGTH: 1507
; TYPE: DNA
; ORGANISM: mouse;
US-08-997-685A-5

Query Match 51.3%; Score 688.8; DB 4; Length 1507;
Best Local Similarity 85.4%; Pred. No. 2.6e-132;
Matches 779; Conservative 0; Mismatches 132; Indels 1; Gaps 1;

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Qy          15 AAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCTACATCCATCAG 74
               ||||||||||||||||||||| ||  || | || || ||||| || || ||||| ||||||
Db         597 AAGATCCTCAGCCTCCTGCGCCTCTTGAGGCTTTCCCGCCTCATTCGATACATTCATCAG 656

Qy          75 TGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGAGGATCTGCAAT 134
               ||||| ||||| |||||||||||||||||||||||||||| ||| |  | |||   ||
Db         657 TGGGAAGAGATTTTCCACATGACCTATGACCTGGCCAGCGCCGTGGTACGCATCGTGAAC 716

Qy         135 CTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGTTCCTGGTGCCC 194
               |||||  |||||||||| ||||| || |||||||| |||||||||||||||| ||||||
Db         717 CTCATTGGCATGATGCTTCTGCTGTGTCACTGGGATGGCTGCCTGCAGTTCCTAGTGCCC 776

Qy         195 ATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGGTGAACCACTCG 254
               |||||||||||||||| |   |||||||||||||||||||||||||||||   ||||
Db         777 ATGCTGCAGGACTTCCCCCATGACTGCTGGGTGTCCATCAATGGCATGGTGAATAACTCC 836

Qy         255 TGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGCTGTGCATCGGG 314
               ||| |  | | ||| |||| ||| |||||||||||||||||||||||||||||||| |||
Db         837 TGGGGGAAGCAGTATTCCTACGCCCTCTTCAAGGCCATGAGCCACATGCTGTGCATTGGG 896

Qy         315 TACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGCTCAGCATGATT 374
               || || |||||||| |||    ||||| | ||| ||||||| ||||||||||||||||||
Db         897 TATGGACGGCAGGCACCCGTAGGCATGTCTGACGTCTGGCTCACCATGCTCAGCATGATC 956

Qy         375 GTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCATCCAGTCGCTG 434
               ||||| ||||||||||| ||||||||||||||||||||||||||||||||||||||||||
Db         957 GTGGGGGCCACCTGCTATGCCATGTTCATCGGCCACGCCACTGCCCTCATCCAGTCGCTA 1016

Qy         435 GACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGTACATGTCCTTC 494
               |||||||| |||||||||||||||||||| || ||||||||||||||||||| |||
Db        1017 GACTCCTCCCGGCGCCAGTACCAGGAGAAGTATAAACAGGTGGAGCAGTACATGTCTTTC 1076

Qy         495 CACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGCACCGTTACCAG 554
               |||||||| ||   |||||  ||| |||    ||||| |||||||||| ||||||||||
Db        1077 CACAAGCTCCCGCCTGACACCCGACAGCGCATCCATGACTACTATGAACACCGTTACCAA 1136

Qy         555 GGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCCTGCGGGAGGAG 614
               |||||||||||||| ||||| |||||||||| ||| | |   | ||| || || ||||||
Db        1137 GGCAAGATGTTTGATGAGGAAAGCATCCTGGGTGAGTTGAGTGAGCCACTTCGAGAGGAG 1196

Qy         615 ATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCGCCAACGCCGAC 674
               ||| ||||||| |||||||| |||||||||| |||||||| ||||| |||||||| ||
Db        1197 ATCATCAACTTTAACTGCCGAAAGCTGGTGGCATCCATGCCACTGTTTGCCAACGCAGAT 1256

Qy         675 CCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCCAGCCGGGTGAC 734
               |||||||| || ||  |||||||||||||| |     |||||||||||||||||| || ||
Db        1257 CCCAACTTTGTGACATCCATGCTGACCAAGTTGCGTTTCGAGGTCTTCCAGCCTGGGGAT 1316

Qy         735 TACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGCACGGCGTGGTC 794
               |||||||||||||||||||||||||||||| |||||||||||||||||||||||||||||
Db        1317 TACATCATCCGCGAAGGCACCATCGGCAAGAAGATGTACTTTATCCAGCACGGCGTGGTC 1376

Qy         795 AGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCTACTTCGGGGAG 854
               |||||||||||||||||||||| |||| | |||| | |||||||||| || || |||
Db        1377 AGCGTGCTCACTAAGGGCAACAAAGAGACCAGGCTGGCTGATGGCTCCTATTTTGGAGAG 1436

Qy         855 ATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACACCTACTGCCGC 914
               |||||| |||| |||||||| || ||||| || |||||  | || || || || | ||||
Db        1437 ATCTGCTTGCTGACCCGGGGTCGGCGCACAGCCAGCGTCAGAGCGGATACTTA-TTCCGC 1495

Qy         915 CTCTATTCGCTG 926
               ||||| || |||
Db        1496 CTCTACTCACTG 1507


RESULT 13
US-09-086-436-38
; Sequence 38, Application US/09086436
; Patent No. 6703485
; GENERAL INFORMATION:
;  APPLICANT: Kandel, Eric R.
;  APPLICANT: Santoro, Bina
;  APPLICANT: Bartsch, Dusan
;  APPLICANT: Siegelbaum, Steven
;  APPLICANT: Tibbs, Gareth
;  APPLICANT: Grant, Seth
;  TITLE OF INVENTION: Brain or Heart Cyclic Nucleotide Gated Ion Channel and
;  TITLE OF INVENTION: Uses Thereof
;  FILE REFERENCE: 0575/54806-A
;  CURRENT APPLICATION NUMBER: US/09/086,436
;  CURRENT FILING DATE: 1998-05-28
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 38
;   LENGTH: 2246
;   TYPE: DNA
;   ORGANISM: Human
US-09-086-436-38

  Query Match             50.7%;  Score 680.2;  DB 4;  Length 2246;
  Best Local Similarity   75.0%;  Pred. No. 1.6e-130;
  Matches  850;  Conservative    0;  Mismatches  283;  Indels    0;  Gaps    0;

Qy           4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
               || | || || || || ||||| ||| ||||  |  | || || ||| |  | ||  | |
Db         407 TGAGGTTTACAAAAATTCTCAGTCTCTTGCGTTTATTACGACTTTCAAGGTTAATTAGAT 466

Qy          64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
               |||| ||||| ||||| ||||| |||||||||||| ||||| || ||||| || ||| |||
Db         467 ACATACATCAATGGGAAGAGATATTCCACATGACATATGATCTCGCCAGTGCAGTGGTGA 526

Qy         124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
               | || |  |||||||| |||||||||||| || |||||||||| || || || ||||
Db         527 GAATTTTTAATCTCATCGGCATGATGCTGCTCCTGTGCCACTGGGATGGTTGTCTTCAGT 586

Qy         184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
               || | || ||  | |||||||||||||| |   | ||||||||||  | ||||  ||||
Db         587 TCTTAGTACCACTACTGCAGGACTTCCCACCAGATTGCTGGGTGTCTTTAAATGAAATGG 646

Qy         244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
               | ||  | || ||| |   | | ||| || | |||||||||||| || ||||| |||||||
Db         647 TTAATGATTCTTGGGGAAAGCAGTATTCATACGCACTCTTCAAAGCTATGAGTCACATGC 706

Qy         304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
               ||||||| ||||| ||    || || ||  |||||| | ||| ||||| | |||||||
Db         707 TGTGCATTGGGTATGGAGCCCAAGCCCCAGTCAGCATGTCTGACCTCTGGATTACCATGC 766

Qy         364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
               | |||||||| || || |||||||||||| ||||||||  ||||||| ||||| ||  | |
Db         767 TGAGCATGATCGTCGGGGCCACCTGCTATGCCATGTTTGTCGGCCATGCCACCGCTTTAA 826

Qy         424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
               ||||||| |||||| || ||| |||| ||||| || |||||||| ||||| ||||| || |
Db         827 TCCAGTCTCTGGATTCTTCGAGGCGGCAGTATCAAGAGAAGTATAAGCAAGTGGAACAAT 886

Qy         484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
               ||||||| ||||| ||| | |||||||  | || |||||||| || || |||||||| |
Db         887 ACATGTCATTCCATAAGTTACCAGCTGATATGCGTCAGAAGATACATGATTACTATGAAC 946

Qy         544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
               || | ||||| ||||| || ||||| ||||| |  || ||     || ||||| |  || |
Db         947 ACAGATACCAAGGCAAAATCTTTGATGAGGAAAATATTCTCAATGAACTCAATGATCCTC 1006

Qy         604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
               || | |||||||| |||||||||||||| ||||| |||||||  | |||||  | || |
Db        1007 TGAGAGAGGAGATAGTCAACTTCAACTGTCGGAAACTGGTGGCTACAATGCCTTTATTTG 1066

Qy         664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
               | || || || || || || || || |||||||||| |||| |  |  || ||||| || |
Db        1067 CTAATGCGGATCCTAATTTTGTGACTGCCATGCTGAGCAAGTTGAGATTTGAGGTGTTTC 1126

Qy         724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
               | || || || || ||||| || |||||  || | || || || |||||  ||||| || |
Db        1127 AACCTGGAGATTATATCATACGAGAAGGAGCCGTGGGTAAAAAAATGTATTTCATTCAAC 1186

Qy         784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
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                ||||  ||  |    |  ||   |  ||  ||    ||  ||  ||  |||||||||  |  ||||||||  |
Db       1187 ACGGTGTTGCTGGTGTCATTACAAAATCCAGTAAAGAAATGAAGCTGACAGATGGCTCTT 1246

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              ||||  ||  |||||  ||||||||  |||    ||  ||  ||  ||  ||  ||  ||||||  |
Db       1247 ACTTTGGAGAGATTTGCCTGCTGACCAAAGGACGTCGTACTGCCAGTGTTCGAGCTGATA 1306

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              |  ||  ||  ||  ||  ||  ||  ||    |||||||||  ||||||||||  ||||||||  ||  |
Db       1307 CATATTGTCGTCTTTACTCACTTTCCGTGGACAATTTCAACGAGGTCCTGGAGGAATATC 1366

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              |  ||||||  ||  |  |||||  |||||  ||  |||||  |||||  ||  ||  ||  ||  ||||
Db       1367 CAATGATGAGGAGAGCCTTTGAGACAGTTGCCATTGACCGACTAGATCGAATAGGAAAGA 1426

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
              |  |||||  ||  ||  |||||  |||  |  |||  |  ||  ||  |||  |  ||  ||  ||||||||  |
Db       1427 AAAATTCAATTCTTCTGCAAAAGTTCCAGAAGGATCTGAACACTGGTGTTTTCAACAATC 1486

Qy       1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAG 1136
              |||||||||  |||  ||  ||  ||||  ||  ||  |  |||  |  ||||||||||||
Db       1487 AGGAGAACGAAATCCTCAAGCAGATTGTGAAACATGACAGGGAGATGGTGCAG 1539


RESULT 14
US-08-997-685A-9
; Sequence 9, Application US/08997685A
; Patent No. 6551821
; GENERAL INFORMATION:
;  APPLICANT: The Trustees of Columbia University
;  APPLICANT:  Kandel, Eric
;  TITLE OF INVENTION: Brain Cyclic Nucleotide Gated Ion Channel and Uses Thereof
;  FILE REFERENCE: 0575/54806
;  CURRENT APPLICATION NUMBER: US/08/997,685A
;  CURRENT FILING DATE:  1997-12-12
;  NUMBER OF SEQ ID NOS: 60
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 9
;   LENGTH: 2263
;   TYPE: DNA
;   ORGANISM: human
US-08-997-685A-9

  Query Match             50.7%;  Score 680.2;  DB 4;  Length 2263;
  Best Local Similarity   75.0%;  Pred. No. 1.6e-130;
  Matches  850;  Conservative    0;  Mismatches  283;  Indels    0;  Gaps    0;

Qy           4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
               ||  |  ||  ||  ||  ||  |||||  |||  ||||   |   |  ||  ||  |||  |   |  ||   | |
Db         407 TGAGGTTTACAAAAATTCTCAGTCTCTTGCGTTTATTACGACTTTCAAGGTTAATTAGAT 466

Qy          64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
               ||||  |||||  |||||  |||||  ||||||||||||  |||||  ||  |||||  ||  |||  |||
Db         467 ACATACATCAATGGGAAGAGATATTCCACATGACATATGATCTCGCCAGTGCAGTGGTGA 526

Qy         124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
               |  ||  |   |||||||||  ||||||||||||||  ||  ||||||||||||  ||  ||  ||||
Db         527 GAATTTTTAATCTCATCGGCATGATGCTGCTCCTGTGCCACTGGGATGGTTGTCTTCAGT 586

Qy         184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
               ||  |  ||  ||   |  ||||||||||||||  |    |  ||||||||||||   |  ||||  ||||
Db         587 TCTTAGTACCACTACTGCAGGACTTCCCACCAGATTGCTGGGTGTCTTTAAATGAAATGG 646

Qy         244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
               |  ||   |  ||  |||  |   |  |  |||  ||  |  ||||||||||||  ||  |||||  |||||||
Db         647 TTAATGATTCTTGGGGAAAGCAGTATTCATACGCACTCTTCAAAGCTATGAGTCACATGC 706

Qy         304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
               |||||||  |||||  ||     ||  ||  ||  |   ||||||  |  |||  |||||  |  |||||||
Db         707 TGTGCATTGGGTATGGAGCCCAAGCCCCAGTCAGCATGTCTGACCTCTGGATTACCATGC 766

Qy         364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
               |  ||||||||  ||  ||  ||||||||||  ||||||||   |||||||  |||||  ||   |  |
Db         767 TGAGCATGATCGTCGGGGCCACCTGCTATGCCATGTTTGTCGGCCATGCCACCGCTTTAA 826

Qy         424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
               |||||||  |||||  ||  |||  ||||  |||||  ||  ||||||||  |||||  |||||  ||  |
Db         827 TCCAGTCTCTGGATTCTTCGAGGCGGCAGTATCAAGAGAAGTATAAGCAAGTGGAACAAT 886

Qy         484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
               |||||||  |||||  |||  |  ||||||||   |  ||  ||||||||  ||  ||  ||||||||  |
Db         887 ACATGTCATTCCATAAGTTACCAGCTGATATGCGTCAGAAGATACATGATTACTATGAAC 946

Qy         544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
               ||  |  |||||  |||||  ||  |||||  |||||  |  ||  ||     ||  |||||  |  ||  |
Db         947 ACAGATACCAAGGCAAAATCTTTGATGAGGAAAATATTCTCAATGAACTCAATGATCCTC 1006

Qy         604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
               ||  |  ||||||||  ||||||||||||||  |||||  ||||||||   |  |||||   |  ||  |
Db        1007 TGAGAGAGGAGATAGTCAACTTCAACTGTCGGAAACTGGTGGCTACAATGCCTTTATTTG 1066

Qy         664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
               |  ||  ||  ||  ||  ||  ||  ||  ||  ||  ||||||||||  ||||  |  |  ||  |||||  ||  |
Db        1067 CTAATGCGGATCCTAATTTTGTGACTGCCATGCTGAGCAAGTTGAGATTTGAGGTGTTTC 1126

Qy         724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
               |  ||  ||  ||  ||  |||||  ||  |||||   ||  |  ||  ||  ||  |||||  |||||  ||  |
Db        1127 AACCTGGAGATTATATCATACGAGAAGGAGCCGTGGGTAAAAAAATGTATTTCATTCAAC 1186

Qy         784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
               ||||  ||  |   |  ||  |  ||  ||   ||  ||  ||  |||||||||  |  ||||||||  |
Db        1187 ACGGTGTTGCTGGTGTCATTACAAAATCCAGTAAAGAAATGAAGCTGACAGATGGCTCTT 1246

Qy         844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
               ||||  ||  |||||  |||||||||  |||    ||  ||  ||  ||  ||  |||  ||||  |
Db        1247 ACTTTGGAGAGATTTGCCTGCTGACCAAAGGACGTCGTACTGCCAGTGTTCGAGCTGATA 1306

Qy         904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
               |  ||  ||  ||  ||  ||  ||  ||    |||||||||  ||||||||||  ||||||||  ||  |
Db        1307 CATATTGTCGTCTTTACTCACTTTCCGTGGACAATTTCAACGAGGTCCTGGAGGAATATC 1366

Qy         964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
               |  ||||||  ||  |  |||||  |||||  ||  |||||  |||||  ||  ||  ||  ||  ||||
Db        1367 CAATGATGAGGAGAGCCTTTGAGACAGTTGCCATTGACCGACTAGATCGAATAGGAAAGA 1426

Qy        1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
               |  |||||  ||  ||  |||||  |||  |  |||  |  ||  ||  |||  |  ||  ||  ||||||||  |
Db        1427 AAAATTCAATTCTTCTGCAAAAGTTCCAGAAGGATCTGAACACTGGTGTTTTCAACAATC 1486

Qy        1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAG 1136
               |||||||||  |||  ||  ||  ||||  ||  ||  |  |||  |  ||||||||||||
Db        1487 AGGAGAACGAAATCCTCAAGCAGATTGTGAAACATGACAGGGAGATGGTGCAG 1539


RESULT 15
US-09-774-528-238
; Sequence 238, Application US/09774528
; Patent No. 6743619
; GENERAL INFORMATION:
;  APPLICANT:  Tang, Y. Tom
;  APPLICANT:  Zhou, Ping
;  APPLICANT:  Goodrich, Ryle
;  APPLICANT:  Liu, Chenghua
;  APPLICANT:  Asundi, Vinod
;  APPLICANT:  Ren, Feiyan
;  APPLICANT:  Zhang, Jie
;  APPLICANT:  Zhao, Qing A.
;  APPLICANT:  Yang, Yonghong
;  APPLICANT:  Xue, Aidong J.
;  APPLICANT:  Wehrman, Tom
;  APPLICANT:  Wang, Jian-Rui
;  APPLICANT:  Wang, Dunrui
;  APPLICANT:  Drmanac, Radoje T.
;  TITLE OF INVENTION:  No. 6743619el Nucleic Acids and
;  TITLE OF INVENTION:  Polypeptides
;  FILE REFERENCE:  802
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;  CURRENT APPLICATION NUMBER: US/09/774,528
;  CURRENT FILING DATE:  2001-01-30
;  NUMBER OF SEQ ID NOS:  441
;  SOFTWARE:  pt_FL_genes Version 2.0
; SEQ ID NO 238
;   LENGTH: 3224
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (1)..(2673)
US-09-774-528-238

  Query Match             50.7%;  Score 680.2;  DB 4;  Length 3224;
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  Matches  850;  Conservative    0;  Mismatches  283;  Indels    0;  Gaps    0;

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Db        890 GAATTTTTAATCTCATCGGCATGATGCTGCTCCTGTGCCACTGGGATGGTTGTCTTCAGT 949

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
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Search completed: August 31, 2005, 04:24:22
Job time : 222 secs
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GenCore version 5.1.6

OM nucleic - nucleic search, using sw model

Run on: August 31, 2005, 03:42:39 ; Search time 4810 Seconds
(without alignments)
1825.536 Million cell updates/sec

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Perfect score: 1342
Sequence: 1 cgttgcgcttcaccaagatc.....cacctgchgccncctcaccc 1342

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 7331713 seqs, 3271544945 residues

Total number of hits satisfying chosen parameters: 14663426

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_NA:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1297	96.6	3372	14	US-10-067-457-2	Sequence 2, Appli
2	1295.4	96.5	3459	18	US-10-311-795-3	Sequence 3, Appli
3	1295.4	96.5	3459	22	US-10-756-149-1720	Sequence 1720, Ap
4	1207	89.9	1792	10	US-09-086-436-40	Sequence 40, Appl
5	1207	89.9	1792	19	US-10-753-991-40	Sequence 40, Appl
6	1194.4	89.0	1790	21	US-10-384-107-11	Sequence 11, Appl
7	1191.6	88.8	2125	17	US-10-292-798-2011	Sequence 2011, Ap
8	1109.2	82.7	1966	15	US-10-017-161-2369	Sequence 2369, Ap
9	1048.6	78.1	3102	14	US-10-067-457-6	Sequence 6, Appli
10	927.2	69.1	4751	18	US-10-311-795-5	Sequence 5, Appli
11	927.2	69.1	5065	14	US-10-067-457-4	Sequence 4, Appli
12	927.2	69.1	5499	18	US-10-276-774-973	Sequence 973, App
13	874.2	65.1	1512	10	US-09-086-436-32	Sequence 32, Appl
14	874.2	65.1	1512	19	US-10-753-991-32	Sequence 32, Appl
15	871	64.9	1584	21	US-10-384-107-3	Sequence 3, Appli
16	753.4	56.1	3852	18	US-10-332-447-57	Sequence 57, Appl
17	751.8	56.0	2325	10	US-09-548-933-2	Sequence 2, Appli
18	751.8	56.0	2325	14	US-10-158-684-9	Sequence 9, Appli
19	751.8	56.0	2325	14	US-10-158-711-9	Sequence 9, Appli
20	751.8	56.0	2976	17	US-10-120-988-317	Sequence 317, App
21	751.8	56.0	3496	18	US-10-311-795-7	Sequence 7, Appli
22	735.2	54.8	2733	21	US-10-384-107-1	Sequence 1, Appli
23	706	52.6	1518	10	US-09-086-436-34	Sequence 34, Appl
24	706	52.6	1518	19	US-10-753-991-34	Sequence 34, Appl
25	688.8	51.3	1507	21	US-10-384-107-5	Sequence 5, Appli
26	681.8	50.8	2990	18	US-10-287-226-351	Sequence 351, App
27	680.2	50.7	1873	16	US-10-296-270-19	Sequence 19, Appl
28	680.2	50.7	1873	16	US-10-296-270-20	Sequence 20, Appl
29	680.2	50.7	2246	10	US-09-086-436-38	Sequence 38, Appl
30	680.2	50.7	2246	19	US-10-753-991-38	Sequence 38, Appl
31	680.2	50.7	2263	21	US-10-384-107-9	Sequence 9, Appli
32	680.2	50.7	2484	16	US-10-296-270-22	Sequence 22, Appl
33	680.2	50.7	2484	16	US-10-296-270-24	Sequence 24, Appl
34	680.2	50.7	2670	18	US-10-311-795-1	Sequence 1, Appli
35	680.2	50.7	2673	14	US-10-158-684-3	Sequence 3, Appli
36	680.2	50.7	2673	14	US-10-158-711-3	Sequence 3, Appli
37	680.2	50.7	2673	16	US-10-296-270-23	Sequence 23, Appl
38	680.2	50.7	2673	16	US-10-296-270-25	Sequence 25, Appl
39	680.2	50.7	2748	21	US-10-466-992-1	Sequence 1, Appli
40	680.2	50.7	2748	21	US-10-466-992-3	Sequence 3, Appli
41	680.2	50.7	2748	21	US-10-466-992-13	Sequence 13, Appl
42	680.2	50.7	2748	21	US-10-466-992-15	Sequence 15, Appl
43	680.2	50.7	2748	21	US-10-466-992-17	Sequence 17, Appl
44	680.2	50.7	2791	16	US-10-296-270-1	Sequence 1, Appli
45	680.2	50.7	2791	16	US-10-296-270-5	Sequence 5, Appli

ALIGNMENTS

RESULT 1
US-10-067-457-2
; Sequence 2, Application US/10067457
; Publication No. US20030082513A1
; GENERAL INFORMATION:
; APPLICANT: Aventis Pharma Deutschland GmbH
; TITLE OF INVENTION: Process for identifying substances which modulate the
; TITLE OF INVENTION: activity of hyperpolarization-activated cation channels
; FILE REFERENCE: AVE D-2000/A006
; CURRENT APPLICATION NUMBER: US/10/067,457
; CURRENT FILING DATE: 2002-04-09
; PRIOR APPLICATION NUMBER: US/09/779,587
; PRIOR FILING DATE: 2001-02-09
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
; LENGTH: 3372
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-067-457-2

Query Match 96.6%; Score 1297; DB 14; Length 3372;
Best Local Similarity 99.0%; Pred. No. 0;
Matches 1328; Conservative 7; Mismatches 3; Indels 3; Gaps 3;

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; Sequence 3, Application US/10311795
; Publication No. US20040033943A1
; GENERAL INFORMATION:
; APPLICANT: SmithKline Beecham plc
; TITLE OF INVENTION: New Use
; FILE REFERENCE: P32614
; CURRENT APPLICATION NUMBER: US/10/311,795
; CURRENT FILING DATE: 2002-12-19
; NUMBER OF SEQ ID NOS: 26
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 3
; LENGTH: 3459
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-311-795-3

Query Match 96.5%; Score 1295.4; DB 18; Length 3459;
Best Local Similarity 99.0%; Pred. No. 0;
Matches 1327; Conservative 7; Mismatches 4; Indels 3; Gaps 3;

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Db       1750 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 1809

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1810 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 1869

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||||
Db       1870 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCCGACA 1929

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1930 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 1989

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1990 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 2049

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       2050 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 2109

Qy       1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1143
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qb       2110 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 2169

Qy       1144 AGCTGGGCTCAGCGCGTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCCGCA-GTCACCTCG 1202
              ||||||| |||||||||||||||||||||||||||||||||||||||||| |||||||||
Db       2170 AGCTGGG-TCAGCGCGTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCAGGTCACCTCG 2228

Qy       1203 GCCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCTGCCCGCA-GTGGCGCGGCCG 1261
              |||||||||||||||||||||||||||||||||||||||||||||||| ||||||||||||
Db       2229 GCCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCTGCCCGCAGGTGGCGCGGCCG 2288

Qy       1262 CTCGTGGGGCCGCTGGCGCTCGGCTCGCCGCGCCTCGTGCGCHGCYNDYHCCCGGGGSCC 1321
              |||||||||||||||||||||||||||||||||||||||||||||:||: :::|||||||:||
Db       2289 CTCGTGGGGCCGCTGGCGCTCGGCTCGCCGCGCCTCGTGCGCCGCCCGCCCCCGGGGCCC 2348

Qy       1322 GCACCTGCHGCCNCCTCACCC 1342
              ||||||||:||| ||||||||
Db       2349 GCACCTGCCGCCGCCTCACCC 2369
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RESULT 3
US-10-756-149-1720
; Sequence 1720, Application US/10756149
; Publication No. US20050181375A1
; GENERAL INFORMATION:
; APPLICANT: Aziz, Natasha
; APPLICANT: Zlotnik, Albert
; TITLE OF INVENTION: NOVEL METHODS OF DIAGNOSIS OF METASTATIC CANCER, COMPOSITIONS AND
; TITLE OF INVENTION: METHODS OF SCREENING FOR MODULATORS OF METASTATIC CANCER
; FILE REFERENCE: file
; CURRENT APPLICATION NUMBER: US/10/756,149
; CURRENT FILING DATE: 2004-01-12
; NUMBER OF SEQ ID NOS: 5818
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 1720
; LENGTH: 3459
; TYPE: DNA
; ORGANISM: Homo Sapiens
US-10-756-149-1720

Query Match 96.5%; Score 1295.4; DB 22; Length 3459;
Best Local Similarity 99.0%; Pred. No. 0;
Matches 1327; Conservative 7; Mismatches 4; Indels 3; Gaps 3;

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Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1030 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 1089

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1090 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 1149

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1150 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 1209

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
              |||||||||| ||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1210 TCCTGGTGCCTATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 1269

Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1270 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 1329

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1330 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 1389

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1390 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 1449

Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1450 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 1509

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1510 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 1569

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1570 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 1629

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1630 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 1689

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1690 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 1749

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1750 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 1809

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1810 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 1869

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCCGACA 903
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||||
Db       1870 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCCGACA 1929

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1930 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 1989

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
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Db       1990 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 2049

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       2050 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 2109

Qy       1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1143
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       2110 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 2169

Qy       1144 AGCTGGGCTCAGCGCGTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCCGCA-GTCACCTCG 1202
             ||||||| |||||||||||||||||||||||||||||||||||||||||| |||||||||
Db       2170 AGCTGGG-TCAGCGCGTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCAGGTCACCTCG 2228

Qy       1203 GCCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCTGCCCGCA-GTGGCGCGGCCG 1261
             ||||||||||||||||||||||||||||||||||||||||||||||| ||||||||||||
Db       2229 GCCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCTGCCCGCAGGTGGCGCGGCCG 2288

Qy       1262 CTCGTGGGGCCGCTGGCGCTCGGCTCGCCGCGCCTCGTGCGCHGCYNDYHCCCGGGGSCC 1321
             ||||||||||||||||||||||||||||||||||||||||:||: :::|||||||:||
Db       2289 CTCGTGGGGCCGCTGGCGCTCGGCTCGCCGCGCCTCGTGCGCCGCCCGCCCCCGGGGCCC 2348

Qy       1322 GCACCTGCHGCCNCCTCACCC 1342
             |||||||:||| ||||||||
Db       2349 GCACCTGCCGCCGCCTCACCC 2369


RESULT 4
US-09-086-436-40
; Sequence 40, Application US/09086436
; Publication No. US20030118988A1
; GENERAL INFORMATION:
;  APPLICANT: Kandel, Eric R.
;  APPLICANT: Santoro, Bina
;  APPLICANT: Bartsch, Dusan
;  APPLICANT: Siegelbaum, Steven
;  APPLICANT: Tibbs, Gareth
;  APPLICANT: Grant, Seth
;  TITLE OF INVENTION: Brain or Heart Cyclic Nucleotide Gated Ion Channel and
;  TITLE OF INVENTION: Uses Thereof
;  FILE REFERENCE: 0575/54806-A
;  CURRENT APPLICATION NUMBER: US/09/086,436
;  CURRENT FILING DATE: 1998-05-28
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 40
;    LENGTH: 1792
;    TYPE: DNA
;    ORGANISM: Human
US-09-086-436-40

  Query Match             89.9%;  Score 1207;  DB 10;  Length 1792;
  Best Local Similarity   99.0%;  Pred. No. 8.7e-311;
  Matches 1235;  Conservative    0;  Mismatches   11;  Indels    2;  Gaps    2;

Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
              |||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||||
Db        541 TGCGCTTCACCAAAATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 600

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        601 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 660

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        661 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 720

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
              |||||||||| ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        721 TCCTGGTGCCTATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 780

Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        781 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 840

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
              ||||||||||||||||||||||||||||||| ||||||||||||||||||||||||||||
Db        841 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAAAGCATGACGGACATCTGGCTGACCATGC 900

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        901 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 960

Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        961 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 1020

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| |
Db       1021 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAAC 1080

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1081 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 1140

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1141 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 1200

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1201 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 1260

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1261 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 1320

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1321 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 1380

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              |||||||||||||||||||||||||||||||||||||||||||||||| ||||||||||||
Db       1381 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGANCGTGCGGGCTGACA 1440

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              |||||||||||||||||| |||||||||||||||||||||| ||||||||||||||||||
Db       1441 CCTACTGCCGCCTCTATTCCCTGAGCGTGGACAACTTCAACGAAGTGCTGGAGGAGTACC 1500

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              |||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db       1501 CCATGATGCGGCGCGCTTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1560

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1561 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1620

Qy       1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1143
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1621 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1680

Qy       1144 AGCTGGGCTCAGCGCGTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCCGCA-GTCACCTCG 1202
              ||||||| |||||||||||| | ||||||||||||||||||||||||| ||||| |||
Db       1681 AGCTGGG-TCAGCGCGTGGGCTTTTTCCCGCCGCCGCCGCCGCCGCCGCAGGTCACTTCG 1739

Qy       1203 GCCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCTGCCCGCAG 1250
              |||||||||||||||||||||||||||||||||||||||||||||||||
Db       1740 GCCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCTGCCCGCAG 1787


RESULT 5
US-10-753-991-40
; Sequence 40, Application US/10753991
; Publication No. US20040142421A1
; GENERAL INFORMATION:
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```
;  APPLICANT: Kandel, Eric R.
;  APPLICANT: Santoro, Bina
;  APPLICANT: Bartsch, Dusan
;  APPLICANT: Siegelbaum, Steven
;  APPLICANT: Tibbs, Gareth
;  APPLICANT: Grant, Seth
;  TITLE OF INVENTION: Brain or Heart Cyclic Nucleotide Gated Ion Channel and
;  TITLE OF INVENTION: Uses Thereof
;  FILE REFERENCE: 0575/54806-A
;  CURRENT APPLICATION NUMBER: US/10/753,991
;  CURRENT FILING DATE: 2004-01-07
;  EARLIER APPLICATION NUMBER: 09/086,436
;  EARLIER FILING DATE: 1998-05-28
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 40
;   LENGTH: 1792
;   TYPE: DNA
;   ORGANISM: Human
US-10-753-991-40

  Query Match             89.9%;  Score 1207;  DB 19;  Length 1792;
  Best Local Similarity   99.0%;  Pred. No. 8.7e-311;
  Matches 1235;  Conservative    0;  Mismatches   11;  Indels    2;  Gaps    2;

Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
              ||||||||||||| |||||||||||||||||||||||||||||||||||||||||||||||
Db        541 TGCGCTTCACCAAAATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 600

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        601 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 660

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        661 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 720

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
              |||||||||| ||||||||||||||||||||||||||||||||||||||||||||||||
Db        721 TCCTGGTGCCTATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 780

Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        781 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 840

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
              |||||||||||||||||||||||||| ||||||||||||||||||||||||||||||||
Db        841 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAAAGCATGACGGACATCTGGCTGACCATGC 900

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        901 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 960

Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        961 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 1020

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| |
Db       1021 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAAC 1080

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1081 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 1140

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1141 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 1200

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1201 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 1260

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1261 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 1320

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1321 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 1380

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              |||||||||||||||||||||||||||||||||||||||||||| ||||||||||||||
Db       1381 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGANCGTGCGGGCTGACA 1440

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              |||||||||||||||||| |||||||||||||||||||| ||||||||||||||||||||
Db       1441 CCTACTGCCGCCTCTATTCCCTGAGCGTGGACAACTTCAACGAAGTGCTGGAGGAGTACC 1500

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              |||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||
Db       1501 CCATGATGCGGCGCGCTTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1560

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1561 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1620

Qy       1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1143
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1621 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1680

Qy       1144 AGCTGGGCTCAGCGCGTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCCGCCGCA-GTCACCTCG 1202
              ||||||| |||||||||||||| | |||||||||||||||||||||||||| ||||| |||
Db       1681 AGCTGGG-TCAGCGCGTGGGCTTTTTCCCGCCGCCGCCGCCGCCGCCGCCGCAGGTCACTTCG 1739

Qy       1203 GCCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCTGCCCGCAG 1250
              ||||||||||||||||||||||||||||||||||||||||||||||||
Db       1740 GCCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCTGCCCGCAG 1787


RESULT 6
US-10-384-107-11
; Sequence 11, Application US/10384107
; Publication No. US20050003477A1
; GENERAL INFORMATION:
;  APPLICANT: The Trustees of Columbia University
;  APPLICANT:  Kandel, Eric R.
;  APPLICANT:  Santoro, Bina
;  APPLICANT:  Bartsch, Dusan
;  APPLICANT:  Siegelbaum, Steven
;  APPLICANT:  Tibbs, Gareth
;  APPLICANT:  Grant, Seth
;  TITLE OF INVENTION: Pacemaker Channel Proteins and Uses Thereof
;  FILE REFERENCE: 0575/54806-B
;  CURRENT APPLICATION NUMBER: US/10/384,107
;  CURRENT FILING DATE:  2003-03-06
;  PRIOR APPLICATION NUMBER: 08/997,685
;  PRIOR FILING DATE: 1997-12-23
;  NUMBER OF SEQ ID NOS: 60
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 11
;   LENGTH: 1790
;   TYPE: DNA
;   ORGANISM: human;
US-10-384-107-11

  Query Match             89.0%;  Score 1194.4;  DB 21;  Length 1790;
  Best Local Similarity   98.9%;  Pred. No. 2e-307;
  Matches 1234;  Conservative    0;  Mismatches   11;  Indels    3;  Gaps    3;

Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
              ||||||||||||| |||||||||||||||||||||||||||||||||||||||||||||||
Db        540 TGCGCTTCACCAAAATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 599

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Db        600 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 659
Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
Db        660 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 719
Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
Db        720 TCCTGGTGCCTATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 779
Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
Db        780 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 839
Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
Db        840 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAAAGCATGACGGACATCTGGCTGACCATGC 899
Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
Db        900 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 959
Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
Db        960 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 1019
Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
Db       1020 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAAC 1079
Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
Db       1080 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 1139
Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
Db       1140 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 1199
Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
Db       1200 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 1259
Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
Db       1260 AGCCGGGTGACTACATCATCCGCGAAAGCACCATCGGGAAGAAGATGTACTTCATCCAGC 1319
Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
Db       1320 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 1379
Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
Db       1380 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGA-CGTGCGGGCTGACA 1438
Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
Db       1439 CCTACTGCCGCCTCTATTCCCTGAGCGTGGACAACTTCAACGAAGTGCTGGAGGAGTACC 1498
Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
Db       1499 CCATGATGCGGCGCGCTTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1558
Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
Db       1559 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1618
Qy       1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1143
Db       1619 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1678
Qy       1144 AGCTGGGCTCAGCGCGTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCCGCA-GTCACCTCG 1202
Db       1679 AGCTGGG-TCAGCGCGTGGGCTTTTCCCGCCGCCGCCGCCGCCGCCAGGTCACTTCG 1737
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Qy       1203 GCCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCTGCCCGCAG 1250
Db       1738 GCCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCTGCCCGCAG 1785
```

RESULT 7
US-10-292-798-2011
; Sequence 2011, Application US/10292798
; Publication No. US20030235833A1
; GENERAL INFORMATION:
; APPLICANT: SUWA, MAKIKO
; APPLICANT: ASAI, KIYOSHI
; APPLICANT: AKIYAMA, YUTAKA
; APPLICANT: ABURATANI, HIROYUKI
; TITLE OF INVENTION: GUANOSINE TRIPHOSPHATE-BINDING PROTEIN COUPLED RECEPTORS
; FILE REFERENCE: 084335/166
; CURRENT APPLICATION NUMBER: US/10/292,798
; CURRENT FILING DATE: 2002-11-13
; PRIOR APPLICATION NUMBER: 10/017,161
; PRIOR FILING DATE: 2001-12-18
; PRIOR APPLICATION NUMBER: JP 2001-246789
; PRIOR FILING DATE: 2001-06-18
; NUMBER OF SEQ ID NOS: 2070
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2011
; LENGTH: 2125
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; LOCATION: source
; FEATURE:
; LOCATION: (1)..(2125)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (201)..(1724)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1767)..(1925)
US-10-292-798-2011

Query Match 88.8%; Score 1191.6; DB 17; Length 2125;
Best Local Similarity 95.2%; Pred. No. 1.1e-306;
Matches 1276; Conservative 7; Mismatches 47; Indels 10; Gaps 5;

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Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
Db        688 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCGCGCCTGATCCGCT 747
Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
Db        748 ACATCCACCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGC 807
Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
Db        808 GGTTCTGCAACCTCATCAGTATGATGCTGCTGCTCTGCCACTGGGATGGCTGCCTGCAGT 867
Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
Db        868 TCCTGGTGGCCATGCTGCAGGACTTCCCGTGCAACTGCTGGGTGTCCATCAATGGCATGG 927
Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
Db        928 TGAACCACTGGTGGAGCGAACTGTATTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 987
Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
Db        988 TGTGCATTGGGTATGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 1047
Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
Db       1048 TCAGCATGATTGTGAGTGACACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 1107
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Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
              ||||||||||||||||||||||||||||| ||||   ||||||||||||||||||||||||
Db       1108 TCCAGTCGCTGGACTCCTCGCGGCGCCAATACC---AGAAGTACAAGCAGGTGGAGCAGT 1164

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
              |||||||||||||||||||||| || ||||||||||||||||||||||||||||| ||||
Db       1165 ACATGTCCTTCCACAAGCTGCCGGCCGACTTCCGCCAGAAGATCCACGACTACTACGAGC 1224

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              |||||||||||||||||||| ||||||||||||||||||||||||||||||||||||||
Db       1225 ACCGTTACCAGGGCAAGATGTTCGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 1284

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              |||||||||||| |||||||||||||||||||||||||| ||||||||||||||||||||
Db       1285 TGCGGGAGGAGATTGTCAACTTCAACTGCCGGAAGCTGGTGACCTCCATGCCGCTGTTCG 1344

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
              |||| || ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1345 CCAATGCTGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 1404

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
              |||||||||||||| |||||||||||||||||||||||   ||||||||||||||| ||||
Db       1405 AGCCGGGTGACTACCTCATCCGCGAAGGCACCATCGG---GAAGATGTACTTCATTCAGC 1461

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              |||||||||||||||||||| ||||||||||||||||||||||||||||| ||||||||||
Db       1462 ACGGCGTGGTCAGCGTGCTCGCTAAGGGCAACAAGGAGATGAAGCTGTTCGATGGCTCCT 1521

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              ||||||| |||||||||||||||||||||||||| ||||| ||||||||||||||   |||
Db       1522 ACTTCGGAGAGATCTGCCTGCTCACCCGGGGCCACCGCATGGCGAGCGTGCGGGCCAACA 1581

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              |||| |||||||||   ||||||||||||||||||||||||||||||||||||||||||||
Db       1582 CCTATTGCCGCCTCCTTTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 1641

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1642 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1701

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
              |||||||||||||||||||||||||||||||||||| ||||||||||||||||||||||
Db       1702 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTTAACTCGGGCGTATTCAACAACC 1761

Qy       1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1143
              || ||||||||||||||||||||||||||||||||||| ||||||||||||||||||||||
Db       1762 AGTAGAACGCCATCATCCAGGAGATCGTCAAGTACGACGGCGAGATGGTGCAGCAGGCCG 1821

Qy       1144 AGCTGGGCTCAGCGCGTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCCGCAGTCACCTCGG 1203
              ||||||| ||||||| |||||||||||||||||||||||||||||||| | ||||||||||
Db       1822 AGCTGGG-TCAGCGCCTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCAG--GTCACCTCGG 1878

Qy       1204 CCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCTGCCCGCA-GTGGCGCGGCCGC 1262
              |||||||||||||||||||||| | || |||||||||||||||||| ||||||||||||||
Db       1879 CCATCGCCACGCTGCAGCAGGCCGTGGTCATGAGCTTCTGCCCGCAGGTGGCGCGGCCGC 1938

Qy       1263 TCGTGGGGCCGCTGGCGCTCGGCTCGCCGCGCCTCGTGCGCHGCYNDYHCCCGGGGSCCG 1322
              ||||||||||||||||||||||||||||||||||||||||||:||: :::|||||||:|||
Db       1939 TCGTGGGGCCGCTGGCGCTCGGCTCGCCGCGCCTCGTGCGCCGCCCGCCCCCGGGGCCCG 1998

Qy       1323 CACCTGCHGCCNCCTCACCC 1342
              |||||||:||| ||||||||
Db       1999 CACCTGCCGCCGCCTCACCC 2018
```

RESULT 8
US-10-017-161-2369
; Sequence 2369, Application US/10017161
; Publication No. US20030143668A1
; GENERAL INFORMATION:
; APPLICANT: SUWA, MAKIKO
; APPLICANT: ASAI, KIYOSHI
; APPLICANT: AKIYAMA, YUTAKA
; APPLICANT: ABURATANI, HIROYUKI
; TITLE OF INVENTION: NOVEL G PROTEIN-COUPLED RECEPTORS
; FILE REFERENCE: 084335/0152
; CURRENT APPLICATION NUMBER: US/10/017,161
; CURRENT FILING DATE: 2002-12-18
; PRIOR APPLICATION NUMBER: JP 2001/246789
; PRIOR FILING DATE: 2001-06-18
; NUMBER OF SEQ ID NOS: 2430
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2369
; LENGTH: 1966
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: source
; LOCATION: (1)..(1966)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (201)..(1766)
; FEATURE:
; NAME/KEY: modified_base
; LOCATION: (7)..(106)
; OTHER INFORMATION: a, t, c, g, unknown or other
; FEATURE:
; NAME/KEY: modified_base
; LOCATION: (139)
; OTHER INFORMATION: a, t, c, g, unknown or other
; FEATURE:
; NAME/KEY: modified_base
; LOCATION: (1915)..(1966)
; OTHER INFORMATION: a, t, c, g, unknown or other
US-10-017-161-2369

Query Match 82.7%; Score 1109.2; DB 15; Length 1966;
Best Local Similarity 95.8%; Pred. No. 9.1e-285;
Matches 1184; Conservative 0; Mismatches 43; Indels 9; Gaps 4;

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Qy           4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
               ||||||||||||||||||||||||||||||||||||||||||||||||| ||||||||||||
Db         688 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCGCGCCTGATCCGCT 747

Qy          64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
               ||||||| |||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         748 ACATCCACCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGC 807

Qy         124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
               || ||||||| |||||||| |||||||||||||||||||||||||| ||||||||||||
Db         808 GGTTCTGCAACCTCATCAGTATGATGCTGCTGCTCTGCCACTGGGATGGCTGCCTGCAGT 867

Qy         184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
               |||||||| |||||||||||||||||| |||||||||||||||||||||||||||||||||
Db         868 TCCTGGTGGCCATGCTGCAGGACTTCCCGTGCAACTGCTGGGTGTCCATCAATGGCATGG 927

Qy         244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
               ||||||||| |||||| |||||||| ||||||||||||||||||||||||||||||||||
Db         928 TGAACCACTGGTGGAGCGAACTGTATTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 987

Qy         304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
               ||||||| ||||| |||||||||||||||||||||||||||||||||||||||||||||||
Db         988 TGTGCATTGGGTATGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 1047

Qy         364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
               |||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||||
Db        1048 TCAGCATGATTGTGAGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 1107

Qy         424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
               |||||||||||||||||||||||||||||||   ||||||||||||||||||||||||
Db        1108 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACC---AGAAGTACAAGCAGGTGGAGCAGT 1164

Qy         484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
               |||||||||||||||||||| || ||||||||||||||||||||||||||||| ||||
Db        1165 ACATGTCCTTCCACAAGCTGCCGGCCGACTTCCGCCAGAAGATCCACGACTACTACGAGC 1224
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Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              ||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db       1225 ACCGTTACCAGGGCAAGATGTTCGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 1284

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              |||||||||||||| ||||||||||||||||||||||||||| ||||||||||||||||||
Db       1285 TGCGGGAGGAGATTGTCAACTTCAACTGCCGGAAGCTGGTGACCTCCATGCCGCTGTTCG 1344

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
              |||| || ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1345 CCAATGCTGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 1404

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
              |||||||||||||| ||||||||||||||||||||||   ||||||||||||||||||||
Db       1405 AGCCGGGTGACTACCTCATCCGCGAAGGCACCATCGG---GAAGATGTACTTCATCCAGC 1461

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              |||||||||||||||||||| ||||||||||||||||||||||||||||| ||||||||||
Db       1462 ACGGCGTGGTCAGCGTGCTCGCTAAGGGCAACAAGGAGATGAAGCTGTTCGATGGCTCCT 1521

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              |||||||||||||||||||||||||||||| ||||| |||||||  |||
Db       1522 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCACCGCATGGCGAGTGTGCGGGCCAACA 1581

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              |||| |||||||||  ||||||||||||||||||||||||||||||||||||||||||||
Db       1582 CCTATTGCCGCCTCCTTTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 1641

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1642 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1701

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
              |||||||||||||||||||||||||||||||||||| ||||||||||||||||||||||
Db       1702 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTTAACTCGGGCGTATTCAACAACC 1761

Qy       1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1143
              || ||||||||||||||||||||||||||||||||||| ||||||||||||||||||||
Db       1762 AGTAGAACGCCATCATCCAGGAGATCGTCAAGTACGACGGCGAGATGGTGCAGCAGGCCG 1821

Qy       1144 AGCTGGGCTCAGCGCGTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCCGCAGTCACCTCGG 1203
              ||||||| || |||| |||||||||||||||||||||||||||| |  ||||||||||
Db       1822 AGCTGGG-TCGGCGCCTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCAG--GTCACCTCGG 1878

Qy       1204 CCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCT 1239
              |||||||||||||||||||| | || ||||||||
Db       1879 CCATCGCCACGCTGCAGCAGGCCGTGGTCATGAGCT 1914
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RESULT 9
US-10-067-457-6
; Sequence 6, Application US/10067457
; Publication No. US20030082513A1
; GENERAL INFORMATION:
; APPLICANT: Aventis Pharma Deutschland GmbH
; TITLE OF INVENTION: Process for identifying substances which modulate the
; TITLE OF INVENTION: activity of hyperpolarization-activated cation channels
; FILE REFERENCE: AVE D-2000/A006
; CURRENT APPLICATION NUMBER: US/10/067,457
; CURRENT FILING DATE: 2002-04-09
; PRIOR APPLICATION NUMBER: US/09/779,587
; PRIOR FILING DATE: 2001-02-09
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
; LENGTH: 3102
; TYPE: DNA
; ORGANISM: Murinae gen. sp.
US-10-067-457-6

Query Match 78.1%; Score 1048.6; DB 14; Length 3102;
Best Local Similarity 87.6%; Pred. No. 1.3e-268;
Matches 1173; Conservative 6; Mismatches 156; Indels 4; Gaps 3;

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Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
              |||||||||||||||||||||| || ||||||||||||| || ||||| || ||||| |
Db        931 TGCGCTTCACCAAGATCCTCAGTCTGCTGCGGCTGCTGCGGCTATCACGGCTCATCCGAT 990

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
              | ||||| |||||||| ||||| |||||||||||||| |||||||| || || ||||||
Db        991 ATATCCACCAGTGGGAAGAGATTTTCCACATGACCTACGACCTGGCAAGTGCAGTGATGC 1050

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
              | ||||| || || |||||||||||||| |||||||||||||||||||| ||||||||||
Db       1051 GCATCTGTAACCTGATCAGCATGATGCTACTGCTCTGCCACTGGGACGGTTGCCTGCAGT 1110

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
              |||||||||||||||||| |||||||| || ||||||||||||||||||    |||||
Db       1111 TCCTGGTGCCCATGCTGCAAGACTTCCCCAGCGACTGCTGGGTGTCCATCAACAACATGG 1170

Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
              |||||||||||||| || || ||||| |||||||||||||||||||||||||||||||||
Db       1171 TGAACCACTCGTGGAGCGAGCTCTACTCGTTCGCGCTCTTCAAGGCCATGAGCCACATGC 1230

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
              |||||||||| ||||| |||||||||||||||||||||| ||||||||||||||||||||
Db       1231 TGTGCATCGGCTACGGGCGGCAGGCGCCCGAGAGCATGACAGACATCTGGCTGACCATGC 1290

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
              |||||||||| || || |||||||||| |||||||||| || ||||||||||| ||||
Db       1291 TCAGCATGATCGTAGGCGCCACCTGCTATGCCATGTTCATTGGGCACGCCACTGCGCTCA 1350

Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
              ||||||| ||||| || || |||||||| |||||||||||||||||| || ||||| |
Db       1351 TCCAGTCCCTGGATTCGTCACGGCGCCAATACCAGGAGAAGTACAAGCAAGTAGAGCAAT 1410

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
              |||||||||||||||| ||||| ||||||||||||||||||||||||| |||||||| |
Db       1411 ACATGTCCTTCCACAAACTGCCCGCTGACTTCCGCCAGAAGATCCACGATTACTATGAAC 1470

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              |||| ||||| || |||||||||||| ||||||||||||| || || ||||||||||| |
Db       1471 ACCGGTACCAAGGGAAGATGTTTGATGAGGACAGCATCCTTGGGGAACTCAACGGGCCAC 1530

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              |||| |||||||| || |||||||||||||||||||||||||| ||||||||||||| |
Db       1531 TGCGTGAGGAGATTGTGAACTTCAACTGCCGGAAGCTGGTGGCTTCCATGCCGCTGTTTG 1590

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
              |||| || |||||||||||||||| |||||||||| |||||||| || ||||||||||
Db       1591 CCAATGCAGACCCCAACTTCGTCACAGCCATGCTGACAAAGCTCAAATTTGAGGTCTTCC 1650

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
              |||| || || |||||||||| || || |||||||||||||||||||||||||||||||||
Db       1651 AGCCTGGAGATTACATCATCCGAGAGGGGACCATCGGGAAGAAGATGTACTTCATCCAGC 1710

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              | || ||||| |||||||||||| |||||||||||||||||||||||||| ||||||||||
Db       1711 ATGGGGTGGTGAGCGTGCTCACCAAGGGCAACAAGGAGATGAAGCTGTCGGATGGCTCCT 1770

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              | |||||||||||||| ||||||| ||||||| || ||||| |||||||| |||||||
Db       1771 ATTTCGGGGAGATCTGCTTGCTCACGAGGGGCCGGCGTACGGCCAGCGTGCGAGCTGACA 1830

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              ||||||| |||||||| || ||||| |||||||| |||||||||||||||||||| ||||
Db       1831 CCTACTGTCGCCTCTACTCACTGAGTGTGGACAATTTCAACGAGGTGCTGGAGGAATACC 1890

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              |||||||||||| ||||| ||||| ||||| || ||||| || || ||||| |||||||
Db       1891 CCATGATGCGGCGTGCCTTTGAGACTGTGGCTATTGACCGGCTAGATCGCATAGGCAAGA 1950

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
              |||| |||||| | |||||||||| |||||||| |||| ||| || || ||||||||||
Db       1951 AGAACTCCATCTTGCTGCACAAGGTTCAGCATGATCTCAGCTCAGGTGTGTTCAACAACC 2010
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Qy       1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1143
             ||||||| ||||||||||||||||||| ||||| || ||||| ||||||||||||||||||| |
Db       2011 AGGAGAATGCCATCATCCAGGAGATTGTCAAATATGACCGTGAGATGGTGCAGCAGGCAG 2070

Qy       1144 AGCTGGGCTCAGCGCGTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCCGCAGTCACCTCGG 1203
             |||| ||| ||||| ||||| |||||||| || ||||| || |||| |  ||||| ||||
Db       2071 AGCTTGGC-CAGCGTGTGGGGCTCTTCCCACCACCGCCACCACCGCAG--GTCACATCGG 2127

Qy       1204 CCATCGCCACGCTGCAGCAGGCGGCGGCCATGAGCTTCTGCCCGCA-GTGGCGCGGCCGC 1262
             |||| ||||| || |||||||| | ||||||||||||||||||||| ||||| || ||||
Db       2128 CCATTGCCACCCTACAGCAGGCTGTGGCCATGAGCTTCTGCCCGCAGGTGGCCCGCCCGC 2187

Qy       1263 TCGTGGGGCCGCTGGCGCTCGGCTCGCCGCGCCTCGTGCGCHGCYNDYHCCCGGGGSCCG 1322
             |||||||||| |||||||| ||||| || ||||| ||||||:||  :::||| |||:|
Db       2188 TCGTGGGGCCCCTGGCGCTAGGCTCCCCACGCCTAGTGCGCCGCGCGCCCCCAGGGCCTC 2247

Qy       1323 CACCTGCHGCCNCCTCACC 1341
                ||| |:|| |||| ||
Db       2248 TGCCTCCTGCAGCCTCGCC 2266


RESULT 10
US-10-311-795-5
; Sequence 5, Application US/10311795
; Publication No. US20040033943A1
; GENERAL INFORMATION:
;  APPLICANT: SmithKline Beecham plc
;  TITLE OF INVENTION: New Use
;  FILE REFERENCE: P32614
;  CURRENT APPLICATION NUMBER: US/10/311,795
;  CURRENT FILING DATE:  2002-12-19
;  NUMBER OF SEQ ID NOS: 26
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 5
;   LENGTH: 4751
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-311-795-5

  Query Match             69.1%;  Score 927.2;  DB 18;  Length 4751;
  Best Local Similarity   84.7%;  Pred. No. 2.7e-236;
  Matches 1040;  Conservative    0;  Mismatches  188;  Indels    0;  Gaps    0;

Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
              | |||||||| |||||||||||||||| | || ||| | |||||||| ||||| || || |
Db       2126 TCCGCTTCACGAAGATCCTCAGCCTCTTACGCCTGTTACGCCTCTCCCGCCTCATTCGAT 2185

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
              | || || |||||||| |||||||||||||||||||| |||||||||||||| ||| ||
Db       2186 ATATTCACCAGTGGGAAGAGATCTTCCACATGACCTACGACCTGGCCAGCGCCGTGGTGC 2245

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
              | |||    || |||||| |||||||||| ||||||||||||||||||||||||||||||
Db       2246 GCATCGTGAACCTCATCGGCATGATGCTCCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 2305

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
              ||||||| |||||||| |||||||||||    | ||||||||||||||||||    |||||
Db       2306 TCCTGGTACCCATGCTACAGGACTTCCCTGACGACTGCTGGGTGTCCATCAACAACATGG 2365

Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
              ||||| |||| ||| |  | | |||||||| ||| ||||||||||||||||||||||||
Db       2366 TGAACAACTCCTGGGGGAAGCAGTACTCCTACGCGCTCTTCAAGGCCATGAGCCACATGC 2425

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
              |||||||||| ||||| |||||||||||| | ||||| | ||| |||||||| |||||||
Db       2426 TGTGCATCGGCTACGGGCGGCAGGCGCCCGTGGGCATGTCCGACGTCTGGCTCACCATGC 2485

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
              |||||||||| |||||||||||||||||||||||||| |||||||||||||||||||||
Db       2486 TCAGCATGATCGTGGGTGCCACCTGCTACGCCATGTTCATTGGCCACGCCACTGCCCTCA 2545

Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
              ||||||| |||||||||| |||||||||||||||| ||||||||||||||||||||||||

Db       2546 TCCAGTCCCTGGACTCCTCCCGGCGCCAGTACCAGGAAAAGTACAAGCAGGTGGAGCAGT 2605

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
              |||||||||| |||||||| ||  | |||  ||| |||   |||||||||||||| ||||
Db       2606 ACATGTCCTTTCACAAGCTCCCGCCCGACACCCGGCAGCGCATCCACGACTACTACGAGC 2665

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              |||| |||||||||||||||||| |||||||| |||||||||||||||| | || |||||
Db       2666 ACCGCTACCAGGGCAAGATGTTCGACGAGGAGAGCATCCTGGGCGAGCTAAGCGAGCCCC 2725

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              |||||||||||||| ||||||| ||||| |||||||||||||||||||||||| ||||| |
Db       2726 TGCGGGAGGAGATCATCAACTTTAACTGTCGGAAGCTGGTGGCCTCCATGCCACTGTTTG 2785

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
              |||| || |||||||||||||| ||| ||||||||||||||    ||||||||||||
Db       2786 CCAATGCGGACCCCAACTTCGTGACGTCCATGCTGACCAAGCTGCGTTTCGAGGTCTTCC 2845

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
              |||| || |||||||||||||||| |||||||||| || ||||||||||||||||||||
Db       2846 AGCCTGGGGACTACATCATCCGGGAAGGCACCATTGGCAAGAAGATGTACTTCATCCAGC 2905

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              | |||||||||||||||||| |||||||||||||||  |||||| |||| |||||||
Db       2906 ATGGCGTGGTCAGCGTGCTCACCAAGGGCAACAAGGAGACCAAGCTGGCCGACGGCTCCT 2965

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              |||| || |||||||||||||| |||||||||| ||||| || |||||| |||| ||||
Db       2966 ACTTTGGAGAGATCTGCCTGCTGACCCGGGGCCGGCGCACAGCCAGCGTGAGGGCCGACA 3025

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              |||||||||||||||| |||||||||||||||||||||| ||||||||||||||||||||
Db       3026 CCTACTGCCGCCTCTACTCGCTGAGCGTGGACAACTTCAATGAGGTGCTGGAGGAGTACC 3085

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              |||||||||  | |||||||||| |||||  | |||||||||||||||| |||||||
Db       3086 CCATGATGCGAAGGGCCTTCGAGACCGTGGCGCTGGACCGCCTGGACCGCATTGGCAAGA 3145

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
              |||| |||||||||||| ||||| || ||||| |||||||||||| ||||| |||||| |||
Db       3146 AGAACTCCATCCTCCTCCACAAAGTCCAGCACGACCTCAACTCCGGCGTCTTCAACTACC 3205

Qy       1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1143
              ||||||| |  |||||||| |||| ||   || | ||||| |||||||  ||    ||
Db       3206 AGGAGAATGAGATCATCCAGCAGATTGTGCAGCATGACCGGGAGATGGCCCACTGCGCGC 3265

Qy       1144 AGCTGGGCTCAGCGCGTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCCGCAGTCACCTCGG 1203
              | |  | |   ||   ||   ||     || |  || || |  ||| |     ||| ||
Db       3266 ACCGCGTCCAGGCTGCTGCCTCTGCCACCCCAACCCCCACGCCCGTCATCTGGACCCCGC 3325

Qy       1204 CCATCGCCACGCTGCAGCAGGCGGCGGC 1231
                |||    | |  | |||||| || ||
Db       3326 TGATCCAGGCACCACTGCAGGCTGCCGC 3353


RESULT 11
US-10-067-457-4
; Sequence 4, Application US/10067457
; Publication No. US20030082513A1
; GENERAL INFORMATION:
;  APPLICANT: Aventis Pharma Deutschland GmbH
;  TITLE OF INVENTION: Process for identifying substances which modulate the
;  TITLE OF INVENTION:  activity of hyperpolarization-activated cation channels
;  FILE REFERENCE: AVE D-2000/A006
;  CURRENT APPLICATION NUMBER: US/10/067,457
;  CURRENT FILING DATE:  2002-04-09
;  PRIOR APPLICATION NUMBER: US/09/779,587
;  PRIOR FILING DATE: 2001-02-09
;  NUMBER OF SEQ ID NOS: 10
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
;   LENGTH: 5065
;   TYPE: DNA
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;   ORGANISM: Homo sapiens
US-10-067-457-4

  Query Match             69.1%;  Score 927.2;  DB 14;  Length 5065;
  Best Local Similarity   84.7%;  Pred. No. 2.8e-236;
  Matches 1040;  Conservative    0;  Mismatches  188;  Indels    0;  Gaps    0;

Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
              | ||||||||| |||||||||||||||| | || ||| | |||||||| ||||| || || |
Db       1696 TCCGCTTCACGAAGATCCTCAGCCTCTTACGCCTGTTACGCCTCTCCCGCCTCATTCGAT 1755

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
              | || || |||||||| |||||||||||||||||||| |||||||||||||| ||| ||
Db       1756 ATATTCACCAGTGGGAAGAGATCTTCCACATGACCTACGACCTGGCCAGCGCCGTGGTGC 1815

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
              | |||    || |||||| |||||||||| |||||||||||||||||||||||||||||||||
Db       1816 GCATCGTGAACCTCATCGGCATGATGCTCCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 1875

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
              ||||||| |||||||| |||||||||||    |||||||||||||||||||    |||||
Db       1876 TCCTGGTACCCATGCTACAGGACTTCCCTGACGACTGCTGGGTGTCCATCAACAACATGG 1935

Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
              ||||| |||| ||| |   | | |||||||| ||| |||||||||||||||||||||||||
Db       1936 TGAACAACTCCTGGGGGAAGCAGTACTCCTACGCGCTCTTCAAGGCCATGAGCCACATGC 1995

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
              ||||||||| ||||| |||||||||||| | ||||| | ||| ||||||| |||||||
Db       1996 TGTGCATCGGCTACGGGCGGCAGGCGCCCGTGGGCATGTCCGACGTCTGGCTCACCATGC 2055

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
              |||||||||| |||||||||||||||||||||||||||||| ||||||||||||||||||
Db       2056 TCAGCATGATCGTGGGTGCCACCTGCTACGCCATGTTCATTGGCCACGCCACTGCCCTCA 2115

Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
              ||||||| |||||||||| |||||||||||||||||| ||||||||||||||||||||||
Db       2116 TCCAGTCCCTGGACTCCTCCCGGCGCCAGTACCAGGAAAAGTACAAGCAGGTGGAGCAGT 2175

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
              |||||||||| |||||||| ||  | |||  ||| |||  ||||||||||||||| ||||
Db       2176 ACATGTCCTTTCACAAGCTCCCGCCCGACACCCGGCAGCGCATCCACGACTACTACGAGC 2235

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              |||| |||||||||||||||| |||||||| |||||||||||||||| | || |||||
Db       2236 ACCGCTACCAGGGCAAGATGTTCGACGAGGAGAGCATCCTGGGCGAGCTAAGCGAGCCCC 2295

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              |||||||||||||| |||||| ||||| |||||||||||||||||||||||||||| | |
Db       2296 TGCGGGAGGAGATCATCAACTTTAACTGTCGGAAGCTGGTGGCCTCCATGCCACTGTTTG 2355

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
              |||| || |||||||||||||| ||| |||||||||||||||||    |||||||||||||
Db       2356 CCAATGCGGACCCCAACTTCGTGACGTCCATGCTGACCAAGCTGCGTTTCGAGGTCTTCC 2415

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
              |||| || |||||||||||||| |||||||||| || |||||||||||||||||||||||
Db       2416 AGCCTGGGGACTACATCATCCGGGAAGGCACCATTGGCAAGAAGATGTACTTCATCCAGC 2475

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              | |||||||||||||||||||| |||||||||||||||||  |||||| |||| |||||||
Db       2476 ATGGCGTGGTCAGCGTGCTCACCAAGGGCAACAAGGAGACCAAGCTGGCCGACGGCTCCT 2535

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              |||| || |||||||||||||| |||||||||| ||||| || |||||| |||| ||||
Db       2536 ACTTTGGAGAGATCTGCCTGCTGACCCGGGGCCGGCGCACAGCCAGCGTGAGGGCCGACA 2595

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              |||||||||||||||| ||||||||||||||||||||||||| ||||||||||||||||||
Db       2596 CCTACTGCCGCCTCTACTCGCTGAGCGTGGACAACTTCAATGAGGTGCTGGAGGAGTACC 2655

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              ||||||||||  | |||||||||| |||||  | |||||||||||||||| |||||||
Db       2656 CCATGATGCGAAGGGCCTTCGAGACCGTGGCGCTGGACCGCCTGGACCGCATTGGCAAGA 2715

Qy        1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
               |||| |||||||||||| ||||| || ||||| |||||||||| ||||| |||||| |||
Db       2716 AGAACTCCATCCTCCTCCACAAAGTCCAGCACGACCTCAACTCCGGCGTCTTCAACTACC 2775

Qy        1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1143
               ||||||| |  |||||||||| |||| ||  || | ||||| |||||||  ||    ||
Db       2776 AGGAGAATGAGATCATCCAGCAGATTGTGCAGCATGACCGGGAGATGGCCCACTGCGCGC 2835

Qy        1144 AGCTGGGCTCAGCGCGTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCCGCCGCAGTCACCTCGG 1203
               | |  | |   ||   ||   ||    || |  || || |  ||| |      ||| ||
Db       2836 ACCGCGTCCAGGCTGCTGCCTCTGCCACCCCAACCCCCACGCCCGTCATCTGGACCCCGC 2895

Qy        1204 CCATCGCCACGCTGCAGCAGGCGGCGGC 1231
                  |||    | |  | |||||| || ||
Db       2896 TGATCCAGGCACCACTGCAGGCTGCCGC 2923


RESULT 12
US-10-276-774-973
; Sequence 973, Application US/10276774
; Publication No. US20040053245A1
; GENERAL INFORMATION:
;  APPLICANT: Hyseq, Inc.
;  APPLICANT:  Tang, Y, Tom et al
;  TITLE OF INVENTION: No. US20040053245A1el Nucleic Acids and Polypeptides
;  FILE REFERENCE: 21272-030
;  CURRENT APPLICATION NUMBER: US/10/276,774
;  CURRENT FILING DATE:  2002-11-18
;  PRIOR APPLICATION NUMBER: 09/560,875
;  PRIOR FILING DATE: 2000-04-27
;  PRIOR APPLICATION NUMBER: 09/496,914
;  PRIOR FILING DATE: 2000-02-03
;  NUMBER OF SEQ ID NOS: 2700
;  SOFTWARE: Custom
; SEQ ID NO 973
;   LENGTH: 5499
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-276-774-973

  Query Match             69.1%;  Score 927.2;  DB 18;  Length 5499;
  Best Local Similarity   84.7%;  Pred. No. 2.8e-236;
  Matches 1040;  Conservative    0;  Mismatches  188;  Indels    0;  Gaps    0;

Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
              | ||||||||| |||||||||||||||| | || ||| | |||||||| ||||| || || |
Db       2128 TCCGCTTCACGAAGATCCTCAGCCTCTTACGCCTGTTACGCCTCTCCCGCCTCATTCGAT 2187

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
              | || || |||||||| |||||||||||||||||||| |||||||||||||| ||| ||
Db       2188 ATATTCACCAGTGGGAAGAGATCTTCCACATGACCTACGACCTGGCCAGCGCCGTGGTGC 2247

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
              | |||    || |||||| |||||||||| |||||||||||||||||||||||||||||||||
Db       2248 GCATCGTGAACCTCATCGGCATGATGCTCCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 2307

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
              ||||||| |||||||| |||||||||||    |||||||||||||||||||    |||||
Db       2308 TCCTGGTACCCATGCTACAGGACTTCCCTGACGACTGCTGGGTGTCCATCAACAACATGG 2367

Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
              ||||| |||| ||| |   | | |||||||| ||| |||||||||||||||||||||||||
Db       2368 TGAACAACTCCTGGGGGAAGCAGTACTCCTACGCGCTCTTCAAGGCCATGAGCCACATGC 2427

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
              ||||||||| ||||| |||||||||||| | ||||| | ||| ||||||| |||||||
Db       2428 TGTGCATCGGCTACGGGCGGCAGGCGCCCGTGGGCATGTCCGACGTCTGGCTCACCATGC 2487

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
              |||||||||| |||||||||||||||||||||||||||||| ||||||||||||||||||
Db       2488 TCAGCATGATCGTGGGTGCCACCTGCTACGCCATGTTCATTGGCCACGCCACTGCCCTCA 2547
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Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
              ||||||| |||||||||||| |||||||||||||||| ||||||||||||||||||||||
Db       2548 TCCAGTCCCTGGACTCCTCCCGGCGCCAGTACCAGGAAAAGTACAAGCAGGTGGAGCAGT 2607

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
              |||||||||| |||||||| ||  | |||  ||| |||   |||||||||||||| ||||
Db       2608 ACATGTCCTTTCACAAGCTCCCGCCCGACACCCGGCAGCGCATCCACGACTACTACGAGC 2667

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              |||| |||||||||||||||| |||||||| |||||||||||||||| | || |||||
Db       2668 ACCGCTACCAGGGCAAGATGTTCGACGAGGAGAGCATCCTGGGCGAGCTAAGCGAGCCCC 2727

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              ||||||||||||| ||||||| ||||| |||||||||||||||||||||||| ||||| |
Db       2728 TGCGGGAGGAGATCATCAACTTTAACTGTCGGAAGCTGGTGGCCTCCATGCCACTGTTTG 2787

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
              |||| || |||||||||||||| ||| ||||||||||||||    ||||||||||||
Db       2788 CCAATGCGGACCCCAACTTCGTGACGTCCATGCTGACCAAGCTGCGTTTCGAGGTCTTCC 2847

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
              |||| || |||||||||||||| |||||||||| || ||||||||||||||||||||||
Db       2848 AGCCTGGGGACTACATCATCCGGGAAGGCACCATTGGCAAGAAGATGTACTTCATCCAGC 2907

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              | |||||||||||||||||||| |||||||||||||||   |||||| |||| |||||||
Db       2908 ATGGCGTGGTCAGCGTGCTCACCAAGGGCAACAAGGAGACCAAGCTGGCCGACGGCTCCT 2967

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              |||| || |||||||||||||| |||||||||| ||||| || |||||| |||| ||||
Db       2968 ACTTTGGAGAGATCTGCCTGCTGACCCGGGGCCGGCGCACAGCCAGCGTGAGGGCCGACA 3027

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
              |||||||||||||||| |||||||||||||||||||||||||| ||||||||||||||||
Db       3028 CCTACTGCCGCCTCTACTCGCTGAGCGTGGACAACTTCAATGAGGTGCTGGAGGAGTACC 3087

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              |||||||||| | |||||||||| |||||  | |||||||||||||||||| |||||||
Db       3088 CCATGATGCGAAGGGCCTTCGAGACCGTGGCGCTGGACCGCCTGGACCGCATTGGCAAGA 3147

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTCGGGCGTATTCAACAACC 1083
              |||| |||||||||||| ||||| || ||||| |||||||||| ||||| ||||||| |||
Db       3148 AGAACTCCATCCTCCTCCACAAAGTCCAGCACGACCTCAACTCCGGCGTCTTCAACTACC 3207

Qy       1084 AGGAGAACGCCATCATCCAGGAGATCGTCAAGTACGACCGCGAGATGGTGCAGCAGGCCG 1143
              ||||||| |  |||||||| |||| ||  || | ||||| |||||||  ||    ||
Db       3208 AGGAGAATGAGATCATCCAGCAGATTGTGCAGCATGACCGGGAGATGGCCCACTGCGCGC 3267

Qy       1144 AGCTGGGCTCAGCGCGTGGGCCTCTTCCCGCCGCCGCCGCCGCCGCCGCAGTCACCTCGG 1203
              | |  | |   ||   ||   ||    || |  || || |  ||| |     ||| ||
Db       3268 ACCGCGTCCAGGCTGCTGCCTCTGCCACCCCAACCCCCACGCCCGTCATCTGGACCCCGC 3327

Qy       1204 CCATCGCCACGCTGCAGCAGGCGGCGGC 1231
                |||    | |  | |||||| || ||
Db       3328 TGATCCAGGCACCACTGCAGGCTGCCGC 3355


RESULT 13
US-09-086-436-32
; Sequence 32, Application US/09086436
; Publication No. US20030118988A1
; GENERAL INFORMATION:
;  APPLICANT: Kandel, Eric R.
;  APPLICANT: Santoro, Bina
;  APPLICANT: Bartsch, Dusan
;  APPLICANT: Siegelbaum, Steven
;  APPLICANT: Tibbs, Gareth
;  APPLICANT: Grant, Seth
;  TITLE OF INVENTION: Brain or Heart Cyclic Nucleotide Gated Ion Channel and
;  TITLE OF INVENTION: Uses Thereof
;  FILE REFERENCE: 0575/54806-A
;  CURRENT APPLICATION NUMBER: US/09/086,436
;  CURRENT FILING DATE: 1998-05-28
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 32
;   LENGTH: 1512
;   TYPE: DNA
;   ORGANISM: Murine
US-09-086-436-32

  Query Match            65.1%;  Score 874.2;  DB 10;  Length 1512;
  Best Local Similarity  88.9%;  Pred. No. 2.8e-222;
  Matches  945;  Conservative    0;  Mismatches  118;  Indels    0;  Gaps    0;

Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
              |||||||||||||||||||||| || |||||||||||||| || ||||| || ||||| |
Db        449 TGCGCTTCACCAAGATCCTCAGTCTGCTGCGGCTGCTGCGGCTATCACGGCTCATCCGAT 508

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
              | ||||| |||||||| ||||| |||||||||||||| |||||||| || || ||||||
Db        509 ATATCCACCAGTGGGAAGAGATTTTCCACATGACCTACGACCTGGCAAGTGCAGTGATGC 568

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
              | ||||| || || |||||||||||||||| |||||||||||||||||||| ||||||||||
Db        569 GCATCTGTAACCTGATCAGCATGATGCTACTGCTCTGCCACTGGGACGGTTGCCTGCAGT 628

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
              |||||||||||||||||| |||||||  || ||||||||||||||||||    |||||
Db        629 TCCTGGTGCCCATGCTGCAAGACTTCCCCAGCGACTGCTGGGTGTCCATCAACAACATGG 688

Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
              |||||||||||||||| || || ||||| ||||| ||||||||||||||||||||||||
Db        689 TGAACCACTCGTGGAGCGAGCTCTACTCGTTCGCGCTCTTCAAGGCCATGAGCCACATGC 748

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
              |||||||||| ||||| |||||||||||||||||||||||||||| ||||||||||||||
Db        749 TGTGCATCGGCTACGGGCGGCAGGCGCCCGAGAGCATGACAGACATCTGGCTGACCATGC 808

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
              ||||||||| || || |||||||||| |||||||||| || |||||||||| ||||
Db        809 TCAGCATGATCGTAGGCGCCACCTGCTATGCCATGTTCATTGGGCACGCCACTGCGCTCA 868

Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
              ||||||| ||||| || || |||||||| |||||||||||||||||| || ||||| |
Db        869 TCCAGTCCCTGGATTCGTCACGGCGCCAATACCAGGAGAAGTACAAGCAAGTAGAGCAAT 928

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
              ||||||||||||||||| ||||| |||||||||||||||||||||||| |||||||| |
Db        929 ACATGTCCTTCCACAAACTGCCCGCTGACTTCCGCCAGAAGATCCACGATTACTATGAAC 988

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              |||| ||||| || ||||||| ||| |||||||||||||| || || |||||||||| |
Db        989 ACCGGTACCAAGGGAAGATGTCTGATGAGGACAGCATCCTTGGGGAACTCAACGGGCCAC 1048

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              |||| |||||||| || |||||||||||||||||||||||||| ||||||||||||| |
Db       1049 TGCGTGAGGAGATTGTGAACTTCAACTGCCGGAAGCTGGTGGCTTCCATGCCGCTGTTTG 1108

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
              |||| || |||||||| |||||||||| |||||||||| || |||||||||||||||||
Db       1109 CCAATGCAGACCCCAATTTCGTCACAGCCATGCTGACAAAGCTCAAATTTGAGGTCTTCC 1168

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
              |||| || || |||||||||| || || |||||||||||||||||||||||||||||||
Db       1169 AGCCTGGAGATTACATCATCCGAGAGGGGACCATCGGGAAGAAGATGTACTTCATCCAGC 1228

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              | || ||||| |||||||||||| |||||||||||||||||||||||||| ||||||||||
Db       1229 ATGGGGTGGTGAGCGTGCTCACCAAGGGCAACAAGGAGATGAAGCTGTCGGATGGCTCCT 1288

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              | |||||||||||||| |||||||  ||||||| || ||||| |||||||| |||||||
Db       1289 ATTTCGGGGAGATCTGCTTGCTCACGAGGGGCCGGCGTACGGCCAGCGTGCGAGCTGACA 1348
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Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
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Db       1349 CCTACTGTCGCCTCTACTCACTGAGTGTGGACAATTTCAACGAGGTGCTGGAGGAATACC 1408

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              |||||||||||||| ||||| ||||| ||||| || ||||| || || ||||| |||||||
Db       1409 CCATGATGCGGCGTGCCTTTGAGACTGTGGCTATTGACCGGCTAGATCGCATAGGCAAGA 1468

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTC 1066
              |||| |||| | | |||||||||||| |||||||| |||| |||
Db       1469 AGAACTCCACCTTGCTGCACAAGGTTCAGCATGATCTCAGCTC 1511


RESULT 14
US-10-753-991-32
; Sequence 32, Application US/10753991
; Publication No. US20040142421A1
; GENERAL INFORMATION:
;  APPLICANT: Kandel, Eric R.
;  APPLICANT: Santoro, Bina
;  APPLICANT: Bartsch, Dusan
;  APPLICANT: Siegelbaum, Steven
;  APPLICANT: Tibbs, Gareth
;  APPLICANT: Grant, Seth
;  TITLE OF INVENTION: Brain or Heart Cyclic Nucleotide Gated Ion Channel and
;  TITLE OF INVENTION: Uses Thereof
;  FILE REFERENCE: 0575/54806-A
;  CURRENT APPLICATION NUMBER: US/10/753,991
;  CURRENT FILING DATE: 2004-01-07
;  EARLIER APPLICATION NUMBER: 09/086,436
;  EARLIER FILING DATE: 1998-05-28
;  NUMBER OF SEQ ID NOS: 67
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 32
;   LENGTH: 1512
;   TYPE: DNA
;   ORGANISM: Murine
US-10-753-991-32

  Query Match             65.1%;  Score 874.2;  DB 19;  Length 1512;
  Best Local Similarity   88.9%;  Pred. No. 2.8e-222;
  Matches  945;  Conservative    0;  Mismatches  118;  Indels    0;  Gaps    0;

Qy          4 TGCGCTTCACCAAGATCCTCAGCCTCCTGCGGCTGCTGCGCCTCTCACGCCTGATCCGCT 63
              |||||||||||||||||||||| || |||||||||||||| || ||||| || ||||| |
Db        449 TGCGCTTCACCAAGATCCTCAGTCTGCTGCGGCTGCTGCGGCTATCACGGCTCATCCGAT 508

Qy         64 ACATCCATCAGTGGGAGGAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGA 123
              | ||||| |||||||| ||||| |||||||||||||| |||||||| || || |||||||
Db        509 ATATCCACCAGTGGGAAGAGATTTTCCACATGACCTACGACCTGGCAAGTGCAGTGATGC 568

Qy        124 GGATCTGCAATCTCATCAGCATGATGCTGCTGCTCTGCCACTGGGACGGCTGCCTGCAGT 183
              | ||||| || || |||||||||||||| ||||||||||||||||||| ||||||||||
Db        569 GCATCTGTAACCTGATCAGCATGATGCTACTGCTCTGCCACTGGGACGGTTGCCTGCAGT 628

Qy        184 TCCTGGTGCCCATGCTGCAGGACTTCCCGCGCAACTGCTGGGTGTCCATCAATGGCATGG 243
              |||||||||||||||||| |||||||| || ||||||||||||||||||   |||||
Db        629 TCCTGGTGCCCATGCTGCAAGACTTCCCCAGCGACTGCTGGGTGTCCATCAACAACATGG 688

Qy        244 TGAACCACTCGTGGAGTGAACTGTACTCCTTCGCACTCTTCAAGGCCATGAGCCACATGC 303
              |||||||||||||||| || || ||||| ||||| |||||||||||||||||||||||||
Db        689 TGAACCACTCGTGGAGCGAGCTCTACTCGTTCGCGCTCTTCAAGGCCATGAGCCACATGC 748

Qy        304 TGTGCATCGGGTACGGCCGGCAGGCGCCCGAGAGCATGACGGACATCTGGCTGACCATGC 363
              |||||||||| ||||| |||||||||||||||||||| ||||||||||||||||||||
Db        749 TGTGCATCGGCTACGGGCGGCAGGCGCCCGAGAGCATGACAGACATCTGGCTGACCATGC 808

Qy        364 TCAGCATGATTGTGGGTGCCACCTGCTACGCCATGTTCATCGGCCACGCCACTGCCCTCA 423
              |||||||||| || || |||||||||| |||||||||| || |||||||||| ||||
Db        809 TCAGCATGATCGTAGGCGCCACCTGCTATGCCATGTTCATTGGGCACGCCACTGCGCTCA 868

Qy        424 TCCAGTCGCTGGACTCCTCGCGGCGCCAGTACCAGGAGAAGTACAAGCAGGTGGAGCAGT 483
              ||||||| ||||| || || |||||||| |||||||||||||||||||| || ||||| |

Db        869 TCCAGTCCCTGGATTCGTCACGGCGCCAATACCAGGAGAAGTACAAGCAAGTAGAGCAAT 928

Qy        484 ACATGTCCTTCCACAAGCTGCCAGCTGACTTCCGCCAGAAGATCCACGACTACTATGAGC 543
              |||||||||||||||| ||||| |||||||||||||||||||||||||| |||||||| |
Db        929 ACATGTCCTTCCACAAACTGCCCGCTGACTTCCGCCAGAAGATCCACGATTACTATGAAC 988

Qy        544 ACCGTTACCAGGGCAAGATGTTTGACGAGGACAGCATCCTGGGCGAGCTCAACGGGCCCC 603
              |||| ||||| || ||||||| ||| |||||||||||| || || |||||||||| |
Db        989 ACCGGTACCAAGGGAAGATGTCTGATGAGGACAGCATCCTTGGGGAACTCAACGGGCCAC 1048

Qy        604 TGCGGGAGGAGATCGTCAACTTCAACTGCCGGAAGCTGGTGGCCTCCATGCCGCTGTTCG 663
              |||| |||||||| || |||||||||||||||||||||||||||||| ||||||||||||| |
Db       1049 TGCGTGAGGAGATTGTGAACTTCAACTGCCGGAAGCTGGTGGCTTCCATGCCGCTGTTTG 1108

Qy        664 CCAACGCCGACCCCAACTTCGTCACGGCCATGCTGACCAAGCTCAAGTTCGAGGTCTTCC 723
              |||| || |||||||| |||||||| |||||||||| |||||||| || ||||||||||
Db       1109 CCAATGCAGACCCCAATTTCGTCACAGCCATGCTGACAAAGCTCAAATTTGAGGTCTTCC 1168

Qy        724 AGCCGGGTGACTACATCATCCGCGAAGGCACCATCGGGAAGAAGATGTACTTCATCCAGC 783
              |||| || || |||||||||| || || ||||||||||||||||||||||||||||||
Db       1169 AGCCTGGAGATTACATCATCCGAGAGGGGACCATCGGGAAGAAGATGTACTTCATCCAGC 1228

Qy        784 ACGGCGTGGTCAGCGTGCTCACTAAGGGCAACAAGGAGATGAAGCTGTCCGATGGCTCCT 843
              | || ||||| |||||||||||| |||||||||||||||||||||||||| ||||||||||
Db       1229 ATGGGGTGGTGAGCGTGCTCACCAAGGGCAACAAGGAGATGAAGCTGTCGGATGGCTCCT 1288

Qy        844 ACTTCGGGGAGATCTGCCTGCTCACCCGGGGCCGCCGCACGGCGAGCGTGCGGGCTGACA 903
              | |||||||||||||| |||||||  ||||||| || ||||| |||||||| |||||||
Db       1289 ATTTCGGGGAGATCTGCTTGCTCACGAGGGGCCGGCGTACGGCCAGCGTGCGAGCTGACA 1348

Qy        904 CCTACTGCCGCCTCTATTCGCTGAGCGTGGACAACTTCAACGAGGTGCTGGAGGAGTACC 963
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Db       1349 CCTACTGTCGCCTCTACTCACTGAGTGTGGACAATTTCAACGAGGTGCTGGAGGAATACC 1408

Qy        964 CCATGATGCGGCGCGCCTTCGAGACGGTGGCCATCGACCGCCTGGACCGCATCGGCAAGA 1023
              |||||||||||||| ||||| ||||| ||||| || ||||| || || ||||| |||||||
Db       1409 CCATGATGCGGCGTGCCTTTGAGACTGTGGCTATTGACCGGCTAGATCGCATAGGCAAGA 1468

Qy       1024 AGAATTCCATCCTCCTGCACAAGGTGCAGCATGACCTCAACTC 1066
              |||| |||| | | |||||||||||| |||||||| |||| |||
Db       1469 AGAACTCCACCTTGCTGCACAAGGTTCAGCATGATCTCAGCTC 1511


RESULT 15
US-10-384-107-3
; Sequence 3, Application US/10384107
; Publication No. US20050003477A1
; GENERAL INFORMATION:
;  APPLICANT: The Trustees of Columbia University
;  APPLICANT:  Kandel, Eric R.
;  APPLICANT:  Santoro, Bina
;  APPLICANT:  Bartsch, Dusan
;  APPLICANT:  Siegelbaum, Steven
;  APPLICANT:  Tibbs, Gareth
;  APPLICANT:  Grant, Seth
;  TITLE OF INVENTION: Pacemaker Channel Proteins and Uses Thereof
;  FILE REFERENCE: 0575/54806-B
;  CURRENT APPLICATION NUMBER: US/10/384,107
;  CURRENT FILING DATE:  2003-03-06
;  PRIOR APPLICATION NUMBER: 08/997,685
;  PRIOR FILING DATE: 1997-12-23
;  NUMBER OF SEQ ID NOS: 60
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
;   LENGTH: 1584
;   TYPE: DNA
;   ORGANISM: mouse;
US-10-384-107-3

  Query Match             64.9%;  Score 871;  DB 21;  Length 1584;
  Best Local Similarity   88.7%;  Pred. No. 2e-221;
  Matches  943;  Conservative    0;  Mismatches  120;  Indels    0;  Gaps    0;
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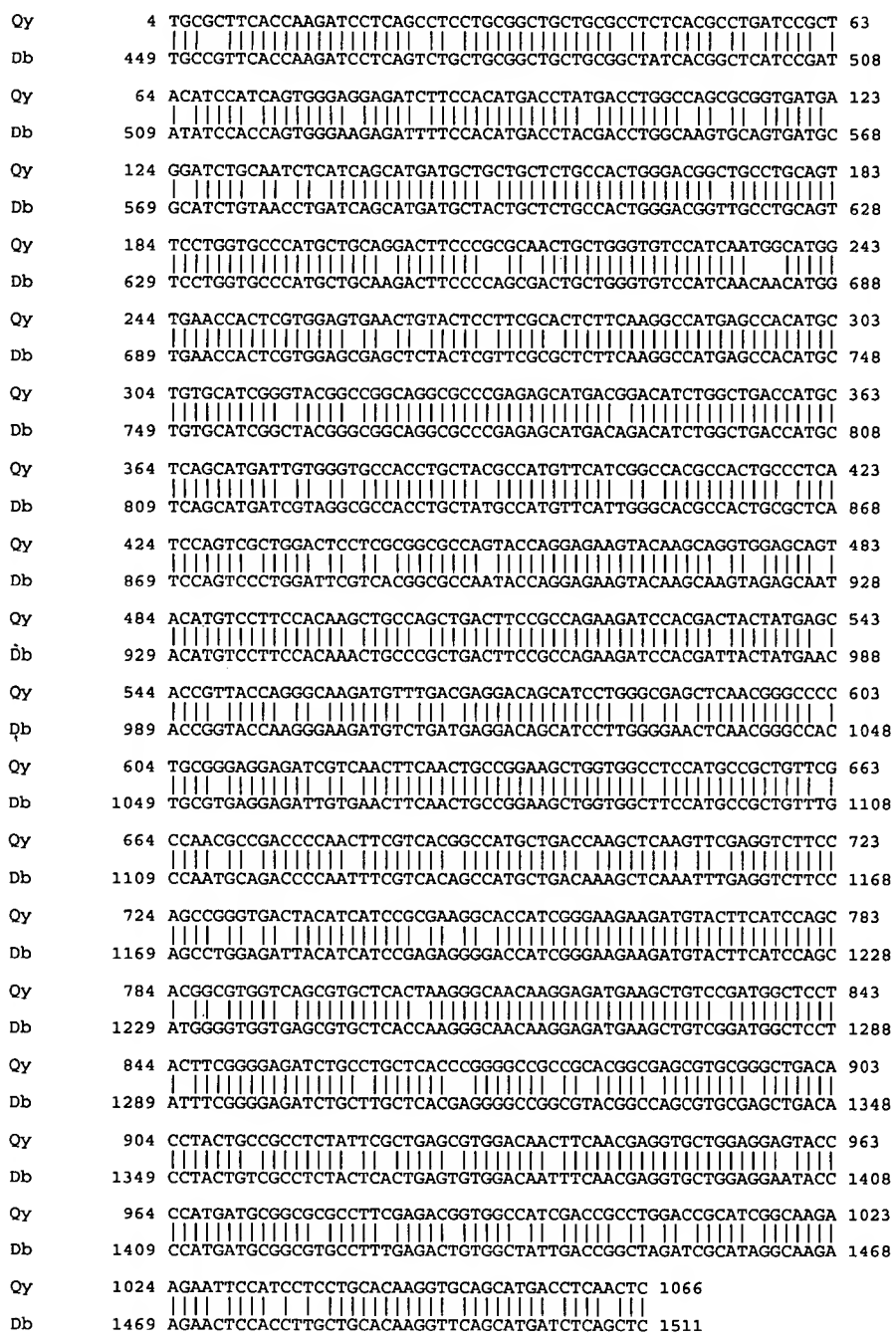

Search completed: August 31, 2005, 10:02:13
Job time : 4813 secs

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